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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:28:10 ; Search time 95.8483 Seconds
(without alignments)
121.622 Million cell updates/sec

Title: US-10-691-125-1

Perfect score: 738

Sequence: 1 AVSEHQLLHDKGKSIQDLRR.....EGDHLSDTSTSLDLSRRH 141

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA.*

- 1: /cgn2_6/ptodata/1/iaa/5 COMB.pdp.*
- 2: /cgn2_6/ptodata/1/iaa/6 COMB.pdp.*
- 3: /cgn2_6/ptodata/1/iaa/H COMB.pdp.*
- 4: /cgn2_6/ptodata/1/iaa/PCTUS COMB.pdp.*
- 5: /cgn2_6/ptodata/1/iaa/RE COMB.pdp.*
- 6: /cgn2_6/ptodata/1/iaa/backfiles1.pdp.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	DB ID	Description
1	738	100.0	141	1	US-08-411-726-5
2	738	100.0	141	6	Sequence 5, Appli Patent No. 5217896
3	738	100.0	177	2	Sequence 165, App
4	738	100.0	177	2	Sequence 166, App
5	738	100.0	177	2	Sequence 165, App
6	738	100.0	177	2	Sequence 166, App
7	738	100.0	177	2	Sequence 165, App
8	738	100.0	177	2	Sequence 166, App
9	738	100.0	177	2	Sequence 165, App
10	738	100.0	177	2	Sequence 166, App
11	738	100.0	177	2	Sequence 447, App
12	738	100.0	177	2	Sequence 165, App
13	738	100.0	177	2	Sequence 166, App
14	738	100.0	177	2	Sequence 165, App
15	738	100.0	177	2	Sequence 166, App
16	738	100.0	177	2	Sequence 165, App
17	738	100.0	177	2	Sequence 166, App
18	738	100.0	177	2	Sequence 165, App
19	738	100.0	177	2	Sequence 166, App
20	738	100.0	177	2	Sequence 165, App
21	738	100.0	177	2	Sequence 166, App
22	731	99.1	209	1	Sequence 1, Appli Patent No. 5217896
23	725	98.2	256	2	Sequence 10164, A
24	458	62.1	87	6	Sequence 62, Appli Patent No. 5217896
25	452	61.2	86	2	Sequence 62, Appli Patent No. 5217896
26	361	48.9	69	6	Sequence 5, Appli Patent No. 5217896
27	293	39.7	56	6	Sequence 5, Appli Patent No. 5217896

28	262	35.5	90	2	US-09-513-999C-4470	Sequence 4470, Ap
29	214	29.0	47	1	US-07-778-926-21	Sequence 21, Appl
30	210	28.5	46	1	US-07-778-926-17	Sequence 17, Appl
31	208	28.2	43	6	5460978-1	Patent No. 5460978
32	206	27.9	44	1	US-07-778-926-9	Sequence 9, Appli
33	206	27.9	45	1	US-07-778-926-13	Sequence 13, Appl
34	203	27.5	40	2	US-09-623-548A-260	Sequence 260, App
35	203	27.5	40	2	US-09-657-276-260	Sequence 260, App
36	203	27.5	41	2	US-09-623-548A-284	Sequence 284, App
37	203	27.5	41	2	US-09-657-276-284	Sequence 284, App
38	201	27.2	43	1	US-07-778-926-5	Sequence 5, Appli
39	190	25.7	37	2	US-09-623-548A-299	Sequence 299, App
40	190	25.7	37	2	US-09-657-276-299	Sequence 299, App
41	185	25.1	36	2	US-10-340-484-2	Sequence 2, Appli
42	185	25.1	36	2	US-10-340-484-3	Sequence 3, Appli
43	185	25.1	36	2	US-10-340-484-4	Sequence 4, Appli
44	185	25.1	36	2	US-10-340-484-5	Sequence 5, Appli
45	185	25.1	36	2	US-10-340-484-6	Sequence 6, Appli

ALIGNMENTS

RESULT 1

US-08-411-726-5

; Sequence 5, Application US/08411726

; Patent No. 5880093

; GENERAL INFORMATION:

; APPLICANT: BAGNOLI, Franco

; TITLE OF INVENTION: Use of Parathormone, Its Biologically

; TITLE OF INVENTION: Active Fragments and Correlated Peptides, for The Preparation

; NUMBER OF SEQUENCES: 5

; CORRESPONDENCE ADDRESSES:

; ADDRESSEE: Kenyon & Kenyon

; STREET: 1 Broadway

; CITY: New York

; STATE: NY

; COUNTRY: US

; ZIP: 10004

; COMPUTER READABLE FORM:

; MEDIUM TYPE: 3.5 Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS 6.2

; SOFTWARE: WordPerfect 6.1 for Windows

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/411,726

; FILING DATE: 05-APR-1995

; CLASSIFICATION: 514

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: PCT/EP93/02755

; FILING DATE: 08-OCT-1993

; APPLICATION NUMBER: MI-92A002331

; FILING DATE: 09-OCT-1992

; ATTORNEY/AGENT INFORMATION:

; NAME: PALMESE, Maria Luisa

; REGISTRATION NUMBER: 34,402

; REFERENCE/DOCKET NUMBER: 2111/1300

; TELEPHONE: 212-425-7200

; TELEFAX: 212-425-5288

; INFORMATION FOR SEQ ID NO: 5:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 141 amino acids

; TYPE: amino acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: protein

US-08-411-726-5

Query Match 100.0%; Score 738; DB 1; Length 141;

Best Local Similarity 100.0%; Pred. No. 1.7e-69;

Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;


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; APPLICANT: Kalos, Michael D.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C6
; CURRENT APPLICATION NUMBER: US/09/480,884A
; CURRENT FILING DATE: 2001-08-27
; NUMBER OF SEQ ID NOS: 330
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-480-884A-165

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
DB 37 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96

QY 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 120
DB 97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 6
US-09-480-884A-166
; Sequence 166, Application US/09480884A
; Patent No. 6482597
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C6
; CURRENT APPLICATION NUMBER: US/09/480,884A
; CURRENT FILING DATE: 2001-08-27
; NUMBER OF SEQ ID NOS: 330
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-480-884A-166

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
DB 37 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96

QY 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 120
DB 97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 7
US-09-480-884A-166
; Sequence 166, Application US/09480884A
; Patent No. 6482597
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C6
; CURRENT APPLICATION NUMBER: US/09/480,884A
; CURRENT FILING DATE: 2001-08-27
; NUMBER OF SEQ ID NOS: 330
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-480-884A-166

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
DB 37 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96

QY 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 120
DB 97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 8
US-09-542-615A-166
; Sequence 166, Application US/09542615A
; Patent No. 6518256
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C8
; CURRENT APPLICATION NUMBER: US/09/542,615A
; CURRENT FILING DATE: 2000-04-14
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-542-615A-166

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
DB 37 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96

QY 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 120
DB 97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 9
US-09-542-615A-166
; Sequence 166, Application US/09542615A
; Patent No. 6518256
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C8
; CURRENT APPLICATION NUMBER: US/09/542,615A
; CURRENT FILING DATE: 2000-04-14
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-542-615A-166

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
DB 37 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96

QY 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 120
DB 97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 10
US-09-542-615A-165
; Sequence 165, Application US/09542615A
; Patent No. 6518256
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C8
; CURRENT APPLICATION NUMBER: US/09/542,615A
; CURRENT FILING DATE: 2000-04-14
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-542-615A-165

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
DB 37 AVSEHQLLDKGSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96

QY 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 120
DB 97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKKEQKKRRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 157 LEGDHLSDTSTTSLELDSRRH 177
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Db 97 SDDEGRYLTOETNKVETYKEQPLTPGKKKGKPGKKEQKKRRRTSAWLDGVTGSG 156
Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 9
US-09-606-421B-165
; Sequence 165, Application US/09606421B
; Patent No. 6531315
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C9
; CURRENT APPLICATION NUMBER: US/09/606.421B
; CURRENT FILING DATE: 2000-06-28
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRF
; ORGANISM: Homo sapien
US-09-606-421B-165

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 AVSEHQLLDKKGKSIQDLRRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 60
Db 37 AVSEHQLLDKKGKSIQDLRRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETYKEQPLTPGKKKGKPGKKEQKKRRRTSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETYKEQPLTPGKKKGKPGKKEQKKRRRTSAWLDGVTGSG 156
Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 10
US-09-606-421B-166
; Sequence 166, Application US/09606421B
; Patent No. 6531315
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C9
; CURRENT APPLICATION NUMBER: US/09/606.421B
; CURRENT FILING DATE: 2000-06-28
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSeq for Windows Version 3.0

; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRF
; ORGANISM: Homo sapien
US-09-606-421B-166

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 AVSEHQLLDKKGKSIQDLRRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 60
Db 37 AVSEHQLLDKKGKSIQDLRRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETYKEQPLTPGKKKGKPGKKEQKKRRRTSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETYKEQPLTPGKKKGKPGKKEQKKRRRTSAWLDGVTGSG 156
Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 11
US-09-976-594-447
; Sequence 447, Application US/09976594
; Patent No. 6673549
; GENERAL INFORMATION:
; APPLICANT: Furness, Michael
; APPLICANT: Buchbinder, Jenny
; TITLE OF INVENTION: GENES EXPRESSED IN C3A LIVER CELL CULTURES TREATED WITH STEROIDS
; FILE REFERENCE: PA-0041 US
; CURRENT APPLICATION NUMBER: US/09/976.594
; PRIOR FILING DATE: 2001-10-12
; PRIOR APPLICATION NUMBER: 60/240,409
; PRIOR FILING DATE: 2000-10-12
; NUMBER OF SEQ ID NOS: 1143
; SOFTWARE: PERL Program
; SEQ ID NO 447
; LENGTH: 177
; TYPE: PRF
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6673549 2026270CD1
US-09-976-594-447

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 AVSEHQLLDKKGKSIQDLRRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 60
Db 37 AVSEHQLLDKKGKSIQDLRRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETYKEQPLTPGKKKGKPGKKEQKKRRRTSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETYKEQPLTPGKKKGKPGKKEQKKRRRTSAWLDGVTGSG 156
Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 12
US-09-466-396A-165
; Sequence 165, Application US/09466396A
; Patent No. 6696247
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY AND
; TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C4


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; CURRENT APPLICATION NUMBER: US/09/466,396A
; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 224
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-466-396A-165

Query Match      100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPSPTKKNHPVRFG 60
Db      37 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPSPTKKNHPVRFG 96

Qy      61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKRKEQKKRRTTSAMLDSGVTGSG 120
Db      97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKRKEQKKRRTTSAMLDSGVTGSG 156

Qy      121 LEGDHLSDTSTTSLELDSRRH 141
Db      157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 13
US-09-466-396A-166
; Sequence 166, Application US/09466396A
; Patent No. 6696247
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY AND
; FILE REFERENCE: 210121.455C4
; CURRENT APPLICATION NUMBER: US/09/466,396A
; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 224
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-466-396A-166

Query Match      100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPSPTKKNHPVRFG 60
Db      37 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPSPTKKNHPVRFG 96

Qy      61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKRKEQKKRRTTSAMLDSGVTGSG 120
Db      97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKRKEQKKRRTTSAMLDSGVTGSG 156

Qy      121 LEGDHLSDTSTTSLELDSRRH 141
Db      157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 14
US-09-476-496A-165
; Sequence 165, Application US/09476496A
; Patent No. 6706262
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY OF
; FILE REFERENCE: 210121.455C5
; CURRENT APPLICATION NUMBER: US/09/476,496A
; CURRENT FILING DATE: 1999-12-30
; NUMBER OF SEQ ID NOS: 254
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-476-496A-165

Query Match      100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 2.2e-69;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPSPTKKNHPVRFG 60
Db      37 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPSPTKKNHPVRFG 96

Qy      61 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKRKEQKKRRTTSAMLDSGVTGSG 120
Db      97 SDDEGRYLTQETNKVETVKEQPLTPGKKKGKPGKRKEQKKRRTTSAMLDSGVTGSG 156

Qy      121 LEGDHLSDTSTTSLELDSRRH 141
Db      157 LEGDHLSDTSTTSLELDSRRH 177

Search completed: December 2, 2005, 22:38:20
Job time : 96.8483 secs
```

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:38:37 ; Search time 392.107 Seconds
(without alignments)
253.705 Million cell updates/sec

Title: US-10-691-125-1

Perfect score: 738

Sequence: 1 AVSEHQQLHDKGSKIQLRR.....EGDHLSDTSTSLSDSRRH 141

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

UniProt_05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	738	100.0	177	1	P12272 homo sapien
2	738	100.0	177	1	Q6FH74 homo sapien
3	725	98.2	175	2	Q53XV9 homo sapien
4	695	94.2	202	2	Q9BDZ3 oryctolagus
5	682	92.4	177	1	P52211 canis famli
6	682	92.4	177	2	Q866H2 sus scrofa
7	673	91.2	177	2	Q659U2 phoca vitul
8	673	91.2	177	2	Q659U3 halichoerus
9	672	91.1	177	1	P58073 bos taurus
10	658	89.2	170	2	Q7YR12 cervus elap
11	651	88.2	137	1	Q9GMB7 equus cabal
12	643	87.1	177	1	P17251 oryctolagus
13	628	85.1	177	1	P13085 rattus norv
14	616	83.5	175	1	P22858 mus musculu
15	616	83.5	175	2	Q540C1 mus musculu
16	610	82.4	175	2	Q924X4 mus musculu
17	608	82.4	175	2	Q811S6 mus musculu
18	521	70.6	176	1	P17251 gallus gall
19	521	70.6	178	2	Q5TLZ2 gallus gall
20	496	67.2	121	1	Q9GK30 ovis aries
21	374	50.7	94	2	Q95KZ2 felis silve
22	263	35.6	163	2	Q918E9 figu rubrip
23	258	35.0	162	2	Q918U2 sparus aura
24	252.5	34.2	198	2	Q5SPK3 brachydanio
25	251.5	34.1	198	2	Q4VVA3 brachydanio
26	239	32.4	166	2	Q53IQ0 platichthys
27	234	31.7	166	2	Q6H9R6 platichthys
28	193.5	26.2	177	2	Q4RSF3 tetraodon n
29	151	20.5	34	2	Q9QVB3 rattus sp.
30	147.5	20.0	107	2	Q4TGY4 tetraodon n
31	108	14.6	236	2	Q6K6K1 oryza sativ

32	101	13.7	653	2	Q9XYZ6_DROME	Q9xyz6 drosophila
33	98	13.3	500	2	Q60SE7_CAEBR	Q60se7 caenorhabdi
34	97	13.1	1027	2	Q9BR70_HUMAN	Q9br70 homo sapien
35	97	13.1	1028	2	Q5R7X2_PONPY	Q5r7x2 pongo pygma
36	95	13.0	338	2	Q9CSW7_MOUSE	Q9csw7 m mus muscu
37	95.5	12.9	1028	2	O15042_HUMAN	O15042 homo sapien
38	95	12.9	868	2	Q9VIY5_DROME	Q9viy5 drosophila
39	95	12.9	1193	2	Q8T8S8_DROME	Q8t8s8 drosophila
40	95	12.9	1304	2	Q8IN06_DROME	Q8in06 drosophila
41	95	12.9	1469	2	Q9VD20_DROME	Q9vd20 drosophila
42	94.5	12.8	985	2	Q6NV83_MOUSE	Q6nv83 mus musculu
43	93.5	12.7	5560	1	SPEN_DROME	Q8ax83 drosophila
44	93	12.6	340	2	Q6DGH4_BRARE	Q6dgh4 brachydanio
45	93	12.6	749	2	Q23804_CHITE	Q23804 chironomus

ALIGNMENTS

RESULT 1
PTHR_HUMAN ID_PTHR_HUMAN STANDARD; PRT; 177 AA.
AC P12272; Q15251;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-OCT-1989 (Rel. 12, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp)
DE [Contains: PTHrP[1-36]; PTHrP[38-94]; Osteostatin (PTHrP[107-139])].
GN Name=PTHrP; Synonyms=PTHrP;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE, AND PARTIAL PROTEIN SEQUENCE.
RX MEDLINE=87292119; PubMed=3616618;
RA Suva L.J., Winslow G.A., Wettenhall R.E.H., Hammonds R.G.,
RA Moseley J.M., Diefenbach-Jagger H., Rodda C.P., Kemp B.E.,
RA Rodriguez H., Chen E.Y., Hudson P.J., Martin T.J., Wood W.I.;
RT "A parathyroid hormone-related protein implicated in malignant
RT hypercalcaemia: cloning and expression."
RL Science 237:893-896(1987).
[2]
RX NUCLEOTIDE SEQUENCE.
MEDLINE=88124888; PubMed=2829195;
RA Mangin M., Webb A.C., Dreyer B.E., Posillico J.T., Ikeda K.,
RA Weir E.C., Stewart A.F., Bander N.H., Milstone L., Barton D.E.,
RA Francke U., Broadus A.E.;
RT "Identification of a cDNA encoding a parathyroid hormone-like peptide
RT from a human tumor associated with humoral hypercalcemia of
RT malignancy."
RL Proc. Natl. Acad. Sci. U.S.A. 85:597-601(1988).
[3]
RX NUCLEOTIDE SEQUENCE.
MEDLINE=89214227; PubMed=2708388;
RA Yasuda T., Banville D., Hendy G.N., Goltzman D.;
RT "Characterization of the human parathyroid hormone-like peptide gene.
RT Functional and evolutionary aspects."
RL J. Biol. Chem. 264:7720-7725(1989).
[4]
RX NUCLEOTIDE SEQUENCE (ISOFORM 2).
MEDLINE=88262996; PubMed=3290897;
RA Thiede M.A., Stewler G.J., Nissenson R.A., Rosenblatt M., Rodan G.A.;
RT "Human renal carcinoma expresses two messages encoding a parathyroid
RT hormone-like peptide: evidence for the alternative splicing of a
RT single-copy gene."
RL Proc. Natl. Acad. Sci. U.S.A. 85:4605-4609(1988).
[5]
RX NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 2).
TISSUE=Brain;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F.,
RA Diatchenko L., Marusina K., Rubin A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J.,
RA Boak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Kryzanski M.I., Skalska U., Smalus D.E.,
RA Schnerch A., Schein J.B., Jones S.J.M., Marra M.A.,
RA "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [6]
RP NUCLEOTIDE SEQUENCE OF 1-33.
RC TISSUE=Liver;
RX MEDLINE=89306685; PubMed=2744490; DOI=10.1016/0378-1119(89)90363-6;
RA Suva L.J., Mather K.A., Gillespie M.T., Webb G.C., Ng K.W.,
RA Winslow G.A., Wood W.I., Martin T.J., Hudson P.J.;
RT "Structure of the 5' flanking region of the gene encoding human
RT parathyroid-hormone-related protein (PTHrP).";
RL Gene 77:95-105(1989).
RN [7]
RP PROTEIN SEQUENCE OF 37-52.
RX MEDLINE=87260926; PubMed=2885845;
RA Moseley J.M., Kubota M., Diefenbach-Jagger H., Wettenhall R.E.H.,
RA Kemp B.E., Suva L.J., Rodda C.P., Ebeling P.R., Hudson P.J.,
RA Zajac J.D., Martin T.J.;
RT "Parathyroid hormone-related protein purified from a human lung cancer
RT cell line.";
RL Proc. Natl. Acad. Sci. U.S.A. 84:5048-5052(1987).
RN [8]
RP ALTERNATIVE SPLICING (ISOFORM 3).
RX MEDLINE=89184636; PubMed=2928340;
RA Mangin M., Ikeda K., Dreyer B.E., Broadus A.E.;
RT "Isolation and characterization of the human parathyroid hormone-like
RT peptide gene.";
RL Proc. Natl. Acad. Sci. U.S.A. 86:2408-2412(1989).
RN [9]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=92007462; PubMed=1915066;
RA Fenton A.J., Kemp B.E., Kent G.N., Moseley J.M., Zheng M.H.,
RA Rowe D.J., Britto J.M., Martin T.J., Nicholson G.C.;
RT "A carboxyl-terminal peptide from the parathyroid hormone-related
RT protein inhibits bone resorption by osteoclasts.";
RL Endocrinology 129:1762-1768(1991).
RN [10]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=92063907; PubMed=1954916;
RA Fenton A.J., Kemp B.E., Hammonds R.G., Mitchelhill K., Moseley J.M.,
RA Martin T.J., Nicholson G.C.;
RT "A potent inhibitor of osteoclastic bone resorption within a highly
RT conserved pentapeptide region of parathyroid hormone-related protein,
RT PTHrP107-111.";
RL Endocrinology 129:3424-3426(1991).
RN [11]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=97289439; PubMed=9144344;
RA Martinez M.E., Garcia-Ocana A., Sanchez M., Medina S., del Campo T.,
RA Valin A., Sanchez-Cabrerudo M.J., Esbrit P.;
RT "C-terminal parathyroid hormone-related protein inhibits proliferation
RT and differentiation of human osteoblast-like cells.";
RL J. Bone Miner. Res. 12:778-785(1997).
RN [12]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=97200810; PubMed=9048639; DOI=10.1210/en.138.3.1299;
RA Cornish J., Callon K.E., Nicholson G.C., Reid I.R.;
RT "Parathyroid hormone-related protein-(107-139) inhibits bone
RT resorption in vivo.";
RL Endocrinology 138:1299-1304(1997).
RN [13]
RP NUCLEOCYTOPASMIC SHUTTLING.
RX MEDLINE=2736810; PubMed=12852260; DOI=10.1016/S0083-6729(03)01010-0;
RA Jans D.A., Thomas R.J., Gillespie M.T.;
RT "Parathyroid hormone-related protein (PTHrP): a nucleocytoplasmic
RT shuttling protein with distinct paracrine and intracrine roles.";
RL Vitam. Horm. 66:345-384(2003).
RN [14]
RP NUCLEAR LOCALIZATION SIGNAL.
RX MEDLINE=21294781; PubMed=11401507; DOI=10.1006/bbrc.2001.4607;
RA Lam M.H., Hu W., Xiao C.Y., Gillespie M.T., Jans D.A.;
RT "Molecular dissection of the importin beta1-recognized nuclear
RT targeting signal of parathyroid hormone-related protein.";
RL Biochem. Biophys. Res. Commun. 282:629-634(2001).
RN [15]
RP REVIEW
RX MEDLINE=22425984; PubMed=12538599; DOI=10.1210/en.2002-220818;
RA Fiaschi-Raesch N.M., Stewart A.F.;
RT "Minireview: parathyroid hormone-related protein as an intracrine
RT factor -- trafficking mechanisms and functional consequences.";
RL Endocrinology 144:407-411(2003).
RN [16]
RP STRUCTURE BY NMR OF 37-70.
RX MEDLINE=99158054; PubMed=10050767; DOI=10.1016/S0014-5793(98)01658-5;
RA Weidner M., Marx U.C., Seidel G., Schafer W., Hoffmann E., Esswein A.,
RA Rosch P.;
RT "The structure of human parathyroid hormone-related protein(1-34) in
RT near-physiological solution.";
RL FEBS Lett. 444:239-244(1999).
RN [17]
RP X-RAY CRYSTALLOGRAPHY (2.9 ANGSTROMS) OF 103-130.
RX MEDLINE=22394015; PubMed=12504010; DOI=10.1016/S1097-2765(02)00727-X;
RA Cingolani G., Bedenko J., Gillespie M.T., Garace L.;
RT "Molecular basis for the recognition of a nonclassical nuclear
RT localization signal by importin beta.";
RL Mol. Cell 10:1345-1353(2002).
CC -1- FUNCTION: Neuroendocrine peptide which is a critical regulator of
CC cellular and organ growth, development, migration, differentiation
CC and survival and of epithelial calcium ion transport. Regulates
CC endochondral bone development and epithelial-mesenchymal
CC interactions during the formation of the mammary glands and teeth.
CC -1- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
CC resorption.
CC -1- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted.
CC -1- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=3;
CC Comment=Additional isoforms seem to exist;
CC Name=1;
CC IsoId=P12272-1; Sequence=Displayed;
CC Name=2;
CC IsoId=P12272-2; Sequence=VSP_004534;
CC Name=3;
CC IsoId=P12272-3; Sequence=VSP_004535;
CC -1- TISSUE SPECIFICITY: Ubiquitous. Also expressed in the mammary
CC gland.
CC -1- PTM: There are 3 principal secretory forms, called PTHrP[1-36],
CC PTHrP[38-94], and osteostatin (PTHrP[107-139]) arising from
CC endoproteolytic cleavage of the initial translation product. Each
CC of these secretory forms is believed to have one or more of its
CC own receptors that mediate the normal paracrine, autocrine and
CC endocrine actions.
CC -1- DISEASE: Produced by many tumors from patients with HHM (humoral
CC hypercalcemia of malignancy).
CC -1- SIMILARITY: Belongs to the parathyroid hormone family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.

```
CC -----
DR EMBL; M17183; AAA60221.1; -; Genomic DNA.

Query Match      100.0%; Score 738; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 9.6e-54;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 96

Qy 61 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 2
Q6FH74 HUMAN
ID Q6FH74 HUMAN PRELIMINARY; PRT; 177 AA.
AC Q6FH74;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DE PTHLH protein (Fragment).
GN Name=PTHLH;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Halleck A., Ebert L., Mkundinya M., Schick M., Eisenstein S.,
RA Neubert P., Katrang K., Schatten R., Shen B., Henze S., Mar W.,
RA Korn B., Zuo D., Hu Y., LaBaer J.;
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
RE EMBL; CR541882; CAG46680.1; -; mRNA.
FT NON TER 177
SQ SEQUENCE 177 AA; 20194 MW; 449FDFEE954C51DB CRC64;

Query Match      100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 9.6e-54;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 96

Qy 61 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 3
Q53XY9 HUMAN
ID Q53XY9 HUMAN PRELIMINARY; PRT; 175 AA.
AC Q53XY9;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone-like hormone.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
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OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kalline N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA Koundinya M., Raphael J., Moreira D., Kelley T., LaBaer J., Lin Y.,
RA Phelan M., Farmer A.;
RT "Cloning of human full-length CDSs in BD Creator(TM) System Donor
RT vector.";
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
RE EMBL; BT007178; AAP35842.1; -; mRNA.
SQ SEQUENCE 175 AA; 19900 MW; 4FEE954C51DB3E7D CRC64;

Query Match      98.2%; Score 725; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 1.1e-52;
Matches 133; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 96

Qy 61 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSR 139
Db 157 LEGDHLSDTSTTSLELDSR 175

RESULT 4
Q9BDZ3 RABIT
ID Q9BDZ3 RABIT PRELIMINARY; PRT; 202 AA.
AC Q9BDZ3;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Parathyroid hormone-related protein.
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA TISSUE=Perichondrial;
RA Goomer R., Terkeltaub R., Defos L.J.;
RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
RE EMBL; AF219973; AAK38175.1; -; mRNA.
DR HSSP; P12272; 1BZG.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003626; PTH_related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
SQ SEQUENCE 202 AA; 22924 MW; 03FBE00AEF3EA7D6 CRC64;

Query Match      94.2%; Score 695; DB 2; Length 202;
Best Local Similarity 99.3%; Pred. No. 4.3e-50;
Matches 133; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRFFFLHLIAEHTAEIRATSEVSPNSKPSPTNKNHPVRFG 96

Qy 61 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEQKKRRTSAWLDGSGVTGSG 156

Qy 121 LEGDHLSDTSTTSL 134
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DE Parathyroid hormone related protein (Fragment).
GN Name=pthlp;
OS Phoca vitulina (Harbor seal).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Pinnipedia; Phocidae;
OC Phoca.
OX NCBI_TaxID=9720;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RA Hammond H.A.; Bennett K.A.; Walton M.J.; Hall A.J.;
RL "Molecular cloning and expression of leptin from seals and its potential role in the control of pinniped pulmonary surfactant secretion."
RT Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
RL Submitter: [2]
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RA Hammond J.A.;
RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL: AJ831411; CAH39862.1; -; mRNA.
DR GO: GO:0005576; C:extracellular region; IEA.
DR CO: GO:0005179; F:hormone activity; IEA.
DR GO: GO:0007595; P:lactation; IEA.
DR InterPro: IPR001415; Parathyrd hrm.
DR Pfam: PF01279; Parathyroid; 1.
DR ProDom: PD013225; PTH related; 1.
DR SMART: SM00087; PTH; 1.
DR PROSITE: PS00335; PARATHYROID; 1.
DR NON TER 177
SQ SEQUENCE 177 AA; 20284 MW; 6E9941EBD22F5397 CRC64;

Query Match 91.2%; Score 673; DB 2; Length 177;
Best Local Similarity 91.5%; Pred. No. 2.5e-48;
Matches 129; Conservative 4; Mismatches 8; Indels 0; Gaps 0;
Qy 1 AVSEHQLLDKSGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKPSPTKNHPVRFG 60
Db 37 AVSEHQLLDKSGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKPSPTKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKRKEQKKRRTSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKRKEQKKRRTSAWLDGVTGSG 156
Qy 121 LEGDHLSDTSTSLDSSRH 141
Db 157 REGDHPYDISVTSPELNLRH 177

RESULT 8
Q659U3 HALGR PRELIMINARY; PRT; 177 AA.
AC Q659U3;
DT 25-OCT-2004 (TReMBLrel. 28, Created)
DT 25-OCT-2004 (TReMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TReMBLrel. 28, Last annotation update)
DE Parathyroid hormone related protein (fragment).
GN Name=pthlp;
OS Halichoerus grypus (Gray seal).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Pinnipedia; Phocidae;
OC Halichoerus.
OX NCBI_TaxID=9711;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RA Hammond H.A.; Bennett K.A.; Walton M.J.; Hall A.J.;
RL "Molecular cloning and expression of leptin from seals and its potential role in the control of pinniped pulmonary surfactant secretion."
RT Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
RL Submitter: [2]
RN [2]

RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RA Hammond J.A.;
RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL: AJ831410; CAH39861.1; -; mRNA.
DR GO: GO:0005576; C:extracellular region; IEA.
DR CO: GO:0005179; F:hormone activity; IEA.
DR GO: GO:0007595; P:lactation; IEA.
DR InterPro: IPR001415; Parathyrd hrm.
DR Pfam: PF01279; Parathyroid; 1.
DR ProDom: PD013225; PTH related; 1.
DR SMART: SM00087; PTH; 1.
DR PROSITE: PS00335; PARATHYROID; 1.
DR NON TER 177
SQ SEQUENCE 177 AA; 20284 MW; 6E9941EBD22F5397 CRC64;

Query Match 91.2%; Score 673; DB 2; Length 177;
Best Local Similarity 91.5%; Pred. No. 2.5e-48;
Matches 129; Conservative 4; Mismatches 8; Indels 0; Gaps 0;
Qy 1 AVSEHQLLDKSGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKPSPTKNHPVRFG 60
Db 37 AVSEHQLLDKSGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKPSPTKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKRKEQKKRRTSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKRKEQKKRRTSAWLDGVTGSG 156
Qy 121 LEGDHLSDTSTSLDSSRH 141
Db 157 REGDHPYDISVTSPELNLRH 177

RESULT 9
PTH-BOVIN STANDARD; PRT; 177 AA.
ID PTHR BOVIN
AC P58073; Q8HYS1;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rP)
DE [Contains: Osteostatin].
GN Name=PTHLP;
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Brain;
RX MEDLINE=98244232; PubMed=9584841; DOI=10.1677/jme.0.0200271;
RA Wojcik S.F.; Schanbacher F.L.; McCauley L.K.; Zhou H.;
RA Kartsogiannis V.; Capen C.C.; Rosol T.J.;
RT "Cloning of bovine parathyroid hormone-related protein (PTH-rP) cDNA and expression of PTHrp mRNA in the bovine mammary gland."
RL J. Mol. Endocrinol. 20:271-280(1998).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Holstein-Friesian; TISSUE=Mammary gland;
RA Onda K.; Inaba M.; Ono K.;
RT "Molecular cloning of bovine parathyroid hormone-related protein cDNA."
RL Submitted (DEC-2002) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of cellular and organ growth, development, migration, differentiation and survival and of epithelial calcium ion transport. Regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth (By similarity).
CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone resorption (By similarity).

CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
CC similarity).
CC -!- TISSUE SPECIFICITY: Expressed in the mammary gland.
CC -!- PTM: There are several secretory forms, including osteostatin,
CC arising from endoproteolytic cleavage of the initial translation
CC product. Each of these secretory forms is believed to have one or
CC more of its own receptors that mediates the normal paracrine,
CC autocrine and endocrine actions (By similarity).
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; AB097837; BAC44840.1; -; mRNA.
CC HSSP; P12272; 1BZG.
CC InterPro; IPR001415; Parathyroid hrm.
CC InterPro; IPR003626; PTH related.
CC PANTHER; PTHR17223; PTH related; 1.
CC Pfam; PF01279; Parathyroid; 1.
CC ProDom; PD013225; PTH related; 1.
CC SMART; SM00087; PTH; 1.
CC PROSITE; PS00335; PARATHYROID; 1.
CC Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
CC Signal.
CC SIGNAL 1 24 Potential.
CC PROPEP 25 34 By similarity.
CC CHAIN 37 177 Parathyroid hormone-related protein.
CC PEPTIDE 143 175 Osteostatin (By similarity).
CC MOTIF 108 129 Nuclear localization signal (By
CC similarity).
CC CONFLICT 26 26 S -> L (in Ref. 2).
CC SEQUENCE 177 AA; 20408 MW; 6A5B48ECB219EF08 CRC64;
Query Match 91.1%; Score 672; DB 1; Length 177;
Best Local Similarity 91.5%; Pred. No. 3.1e-48;
Matches 129; Conservative 5; Mismatches 7; Indels 0; Gaps 0;
QY 1 AVSEHQLLHDKGKSIQDLRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
DB 37 AVSEHQLLHDKGKSIQDLRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 96
QY 61 SDDEGYLTQETNKVETKEQPLTKGKKKGKPKGKKEKKRRTRSAWLSGVGTSG 120
DB 97 SDDEGYLTQETNKVETKEQPLTKGKKKGKPKGKKEKKRRTRSAWLSGVGTSG 156
QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 157 LEEDYLCDSATSLELDSRRH 177
RESULT 10
QYR12 CEREL
ID QYR12 CEREL PRELIMINARY; PRT; 170 AA.
AC QYR12;
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Parathyroid hormone related protein (Fragment).
OS Cervus elaphus (Red deer).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Cervidae; Cervinae; Cervus.
OX NCBI_TaxID=9860;
RN [1]
RP NUCLEOTIDE SEQUENCE
RX PubMed=15516324; DOI=10.1016/j.cellbi.2004.05.005;
RA Barling P.M., Liu H., Matich J., Mount J., Ka Wai Lai A., Ma L.,
RA Baford Nicholson L.F.;
RT "Expression of PTHrP and the PTH/PTHrP receptor in growing red deer
antler.";

RL Cell Biol. Int. 28:661-673(2004).
DR EMBL; AV328402; AAP93209.1; -; mRNA.
DR HSSP; P12272; 1BZG
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003626; PTH related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH related; 1.
FT NON TER 1
SQ SEQUENCE 170 AA; 19445 MW; 08A124B45BDD33BF CRC64;
Query Match 89.2%; Score 658; DB 2; Length 170;
Best Local Similarity 90.1%; Pred. No. 4.3e-47;
Matches 127; Conservative 4; Mismatches 10; Indels 0; Gaps 0;
QY 1 AVSEHQLLHDKGKSIQDLRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
DB 30 AVSEHQLLHDKGKSIQDLRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 89
QY 61 SDDEGYLTQETNKVETKEQPLTKGKKKGKPKGKKEKKRRTRSAWLSGVGTSG 120
DB 90 SDDEGYLTQETNKVETKEQPLTKGKKKGKPKGKKEKKRRTRSAWLSGVGTSG 149
QY 121 LEGDHLSDTSTTSLELDSRRH 141
DB 150 LEEDYLCDSATSLELDSRRH 170
RESULT 11
PTHR HORSE
ID PTHR HORSE STANDARD; PRT; 137 AA.
AC Q9GMB7;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein (PTH-rP) (PTHrP) [Contains:
DE Osteostatin] (Fragment).
GN Names=PTHLH;
OS Equus caballus (Horse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
OX NCBI_TaxID=9796;
RN [1]
RP NUCLEOTIDE SEQUENCES.
RA Nixon A.J., Bent S.J., Brower-Toland B.D.;
RT "Partial nucleotide sequence from the 5' end of equine parathyroid
RT hormone-related peptide mRNA."
RL Submitted (JUL-2000) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of
CC cellular and organ growth, development, migration, differentiation
CC and survival and of epithelial calcium ion transport. Regulates
CC endochondral bone development and epithelial-mesenchymal
CC interactions during the formation of the mammary glands and teeth
CC (By similarity).
CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
CC resorption (By similarity).
CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
CC similarity).
CC -!- PTM: There are several secretory forms, including osteostatin,
CC arising from endoproteolytic cleavage of the initial translation
CC product. Each of these secretory forms is believed to have one or
CC more of its own receptors that mediates the normal paracrine,
CC autocrine and endocrine actions (By similarity).
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC
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CC use as long as its content is in no way modified and this statement is not
CC removed.

DR EMBL; AY005821; AAF99386.1; -, mRNA.
 DR HSP; P12272; 1BZG.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR InterPro; IPR003626; PTH_related.
 DR PANTHER; PTHR17223; PTH_related; 1.
 DR Pfam; PF01279; Parathyroid; 1.
 DR ProDom; PD013225; PTH_related; 1.
 DR PROSITE; PS00335; PARATHYROID; PARTIAL.
 KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein.
 FT PEPTIDE 103 135 Osteostatin (By similarity). (By
 FT MOTIF 68 89 Nuclear localization signal (By
 FT similarity).
 NON TER 1 1
 SQ SEQUENCE 137 AA; 15845 MW; 388DA1162EABAD34 CRC64;

Query Match 88.2%; Score 651; DB 1; Length 137;
 Best Local Similarity 91.2%; Pred. No. 1.3e-46;
 Matches 125; Conservative 4; Mismatches 8; Indels 0; Gaps 0;

QY 5 HQLHDKGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNPKNHPVRFSGDDE 64
 DB 1 HQLHDKGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNPKNHPVRFSGDDE 60
 QY 65 GRYLTQETNKVETKEQPLTPGKKKGKPGKKEQKKRTRSAWLDGSGVTGSGLEGD 124
 DB 61 GRYLTQETNKLEPYKEQPLTPGKKKGKPGKKEQKKRTRSAWLNSEVAESGLDGD 120
 QY 125 HLDSTSTSLDSSRRH 141
 DB 121 HLDSTSTSLDSSRRH 137

RESULT 12
 PTHR RABIT
 ID PTHR RABIT STANDARD; PRT; 177 AA.
 AC Q9GLC7;
 DT 16-OCT-2001 (Rel. 40, Created)
 DT 16-OCT-2001 (Rel. 40, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp)
 GN [Contains: Osteostatin].
 DN Name=PTHrP; Synonyms=PTHrP;
 OS Oryctolagus cuniculus (Rabbit).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
 OC Oryctolagus.
 OX NCBI_TaxID=9986;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA McCaughern-Carucci J.F., Mitnick M., Emanuel J.R., Dworetzky S.I.;
 RT "Cloning and expression of rabbit parathyroid hormone-related
 protein.";
 RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of
 CC cellular and organ growth, development, migration, differentiation
 CC and survival and of epithelial calcium ion transport. Regulates
 CC endochondral bone development and epithelial-mesenchymal
 CC interactions during the formation of the mammary glands and teeth
 CC (By similarity).
 CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
 CC resorption (By similarity).
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
 CC similarity).
 CC -!- PTM: There are several secretory forms, including osteostatin,
 CC arising from endoproteolytic cleavage of the initial translation
 CC product. Each of these secretory forms is believed to have one or
 CC more of its own receptors that mediates the normal paracrine,
 CC autocrine and endocrine actions (By similarity).
 CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
 CC
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its

CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC
 DR EMBL; AF300703; AAG13414.1; -, mRNA.
 DR HSP; P12272; 1BZG.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR InterPro; IPR003626; PTH_related.
 DR PANTHER; PTHR17223; PTH_related; 1.
 DR Pfam; PF01279; Parathyroid; 1.
 DR ProDom; PD013225; PTH_related; 1.
 DR SMART; SM00087; PTH; 1.
 DR PROSITE; PS00335; PARATHYROID; 1.
 KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
 FT PEPTIDE 103 135 Osteostatin (By similarity). (By
 FT MOTIF 68 89 Nuclear localization signal (By
 FT similarity).
 NON TER 1 1
 SQ SEQUENCE 177 AA; 20005 MW; E2D9F4327657B919 CRC64;

Query Match 87.1%; Score 643; DB 1; Length 177;
 Best Local Similarity 89.4%; Pred. No. 8e-46;
 Matches 126; Conservative 1; Mismatches 14; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKGSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNPKNHPVRFSG 60
 DB 37 AVSEHQLLDKGSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNPKNHPVRFSG 96
 QY 61 SDDEGRYLTQETNKVETKEQPLTPGKKKGKPGKKEQKKRTRSAWLDGSGVTGSG 120
 DB 97 SDDEGRYLTQETNKVETKEQPLTPGKKKGKPGKKEQKKRTRSAWPLSAGAGSG 156
 QY 121 LEGDHLSDTSTSLDSSRRH 141
 DB 157 LAGDHLSDISEPEPELDSRRH 177

RESULT 13
 PTHR RAT
 ID PTHR RAT STANDARD; PRT; 177 AA.
 AC P13085;
 DT 01-JAN-1990 (Rel. 13, Created)
 DT 01-JAN-1990 (Rel. 13, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp) (PLP)
 GN [Contains: Osteostatin].
 DN Name=Pthlh; Synonyms=Pthrp;
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89019361; PubMed=3175653;
 RA Thiede M.A., Rodan G.A.;
 RT "Expression of a calcium-mobilizing parathyroid hormone-like peptide
 RT in lactating mammary tissue.";
 RL Science 242:278-280(1988).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89313794; PubMed=2747658;
 RA Yasuda T., Banville D., Rabbani S.A., Hendy G.N., Goltzman D.;
 RT "Rat parathyroid hormone-like peptide: comparison with the human
 RT homologue and expression in malignant and normal tissue.";
 RL Mol. Endocrinol. 3:518-525(1989).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=90259937; PubMed=2342478;
 RA Karaplis A.C., Yasuda T., Hendy G.N., Goltzman D., Banville D.;
 RT "Gene-encoding parathyroid hormone-like peptide: nucleotide sequence

RT of the rat gene and comparison with the human homologue.";

RL Mol. Endocrinol. 4:441-446(1990).

CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of

CC cellular and organ growth, development, migration, differentiation

CC and survival and of epithelial calcium ion transport. Regulates

CC endochondral bone development and epithelial-mesenchymal

CC interactions during the formation of the mammary glands and teeth

CC (By similarity).

CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone

CC resorption (By similarity).

CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By

CC similarity).

CC -!- PTM: There are several secretory forms, including osteostatin,

CC arising from endoproteolytic cleavage of the initial translation

CC product. Each of these secretory forms is believed to have one or

CC more of its own receptors that mediates the normal paracrine,

CC autocrine and endocrine actions (By similarity).

CC -!- SIMILARITY: Belongs to the parathyroid hormone family.

CC -----

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CC -----

DR EMBL; M21967; AAA41981.1; -; mRNA.

DR EMBL; M31603; AAA41980.1; -; mRNA.

DR EMBL; M34112; AAA41889.1; -; Genomic_DNA.

DR EMBL; M34108; AAA41889.1; JOINED; Genomic_DNA.

DR EMBL; M34111; AAA41889.1; JOINED; Genomic_DNA.

DR PIR; A34723; A30012.

DR HSP; P12272; 1BZG.

DR RGD; 3441; Pthlh.

DR InterPro; IPR001415; Parathyroid_hrm.

DR InterPro; IPR003626; PTH_related.

DR PANTHER; PTHR17223; PTH_related; 1.

DR Pfam; PF01279; Parathyroid; 1.

DR ProDom; PD013225; PTH_related; 1.

DR SMART; SM00087; PTH; 1.

DR SMART; SM00087; PTH; 1.

DR PROSITE; PS00335; PARATHYROID; 1.

KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;

KW Signal.

FT SIGNAL 1 24 Potential.

FT PROPEP 25 34

FT CHAIN 37 177 Parathyroid hormone-related protein.

FT PEPTIDE 143 175 Osteostatin (By similarity).

FT MOTIF 108 129 Nuclear localization signal (By

FT similarity).

SQ SEQUENCE 177 AA; 20204 MW; 11091EC48CA73B20 CRC64;

Query Match 85.1%; Score 628; DB 1; Length 177;

Best Local Similarity 88.2%; Pred. No. 1.4e-44;

Matches 12; Conservative 2; Mismatches 9; Indels 6; Gaps 3;

Qy 1 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPNTKNHVPVRF 60

Db 37 AVSEHQLLDKGSIQDLRRRFFLLHLIAETHTAEIRATSEVSPNSKPNTKNHVPVRF 96

Qy 61 SDBEGRYLTQETNKVETYSQPLTPGKKKKGKPKKQEKKKRRTSRALDSGVGTSG 120

Db 97 SDBEGRYLTQETNKVETYSQPLTPGKKKKGKPKKQEKKKRRTSRALDSGVGTSG 154

Qy 121 LEGD---HLSDTSTSLDLSRRH 141

Db 155 LLEDQPHTTPTS--TSLEPSRTH 177

RESULT 14

PTHR_MOUSE

ID_PTHR_MOUSE

AC P22858;

DT 01-AUG-1991 (Rel. 19, Created)

DT 01-AUG-1991 (Rel. 19, Last sequence update)

DT 10-MAY-2005 (Rel. 47, Last annotation update)

DE Parathyroid hormone-related protein precursor (PTH-rp) (PThrP) (PDP)

DE [Contains: Osteostatin]

GN Name=Pthlh; Synonyms=Pthrp;

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;

OC Muroidae; Muridae; Murinae; Mus.

OX NCBI_TaxID=10090;

RN [1]

RP NUCLEOTIDE SEQUENCE.

RX MEDLINE=91065532; PubMed=2249778; DOI=10.1016/0378-1119(90)90362-U;

RA Mangin M., Ikeda K., Broadus A.E.;

RT "Structure of the mouse gene encoding parathyroid hormone-related

RT peptide.";

RL Gene 95:195-202(1990).

RN [2]

RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].

RC STRAIN=FVB/N; TISSUE=Mammary gland;

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,

RA Bisak S.A., McSwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Fahy J., Helton E., Kettaman M., Madan A., Rodriguez S., Sanchez A.,

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Blakeley R.W., Touchman J.W., Green E.D., Dickson M.C.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalls D.E.,

RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

RT "Generation and initial analysis of more than 15,000 full-length human

RT and mouse cDNA sequences.";

RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of

CC cellular and organ growth, development, migration, differentiation

CC and survival and of epithelial calcium ion transport. Regulates

CC endochondral bone development and epithelial-mesenchymal

CC interactions during the formation of the mammary glands and teeth

CC (By similarity).

CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone

CC resorption (By similarity).

CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By

CC similarity).

CC -!- PTM: There are several secretory forms, including osteostatin,

CC arising from endoproteolytic cleavage of the initial translation

CC product. Each of these secretory forms is believed to have one or

CC more of its own receptors that mediates the normal paracrine,

CC autocrine and endocrine actions (By similarity).

CC -!- SIMILARITY: Belongs to the parathyroid hormone family.

CC -----

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CC -----

DR EMBL; M60057; AAA63639.1; -; Genomic_DNA.

DR EMBL; M60058; AAA63639.1; JOINED; Genomic_DNA.

DR EMBL; M60056; AAA63639.1; JOINED; Genomic_DNA.

DR EMBL; BC058187; AAH58187.1; -; mRNA.

DR PIR; JN0103; JN0103.

DR HSP; P12272; 1BZG.

DR Ensembl; ENSMUSG00000048776; Mus musculus.

DR MGI; MGI:97800; Pthlh.

DR GO; GO:0005615; C:extracellular space; TAS.

DR GO; GO:0005179; F:hormone activity; TAS.

DR GO:0048286; P:alveolus development; IMP.
DR GO:0030855; P:epithelial cell differentiation; IMP.
DR GO:0001501; P:skeletal development; IMP.
DR GO:0043129; P:surfactant homeostasis; IMP.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003626; PTH_related.
DR PANTHER; PTHR17223; PTH_related; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR ProSITE; PS00335; PARATHYROID; 1.
KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
KW Signal.
FT SIGNAL 1 24 Potential.
FT PROPEP 25 34
FT CHAIN 37 175 Parathyroid hormone-related protein.
FT PEPTIDE 143 173 Osteostatin (By similarity).
FT MOTIF 108 129 Nuclear localization signal (By
FT similarity).
SQ SEQUENCE 175 AA; 20100 MW; 6D27CFCC31900B45 CRC64;

Query Match 83.5%; Score 616; DB 1; Length 175;
Best Local Similarity 86.5%; Pred. No. 1.4e-43;
Matches 122; Conservative 2; Mismatches 15; Indels 2; Gaps 1;

Qy 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSNPKNHPVRF 60
Db 37 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSNPKNHPVRF 96

Qy 61 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEKKRRTSRWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEKKRRTSRWLDGVTGSG 154

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 155 LLEDPLPHTSRTSLPSLRTH 175

Search completed: December 2, 2005, 23:19:30
Job time : 399.307 secs

us-10-691-125-1.rup

DR GO:0048286; P:alveolus development; IMP.
DR GO:0030855; P:epithelial cell differentiation; IMP.
DR GO:0001501; P:skeletal development; IMP.
DR GO:0043129; P:surfactant homeostasis; IMP.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003626; PTH_related.
DR PANTHER; PTHR17223; PTH_related; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR ProSITE; PS00335; PARATHYROID; 1.
KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
KW Signal.
FT SIGNAL 1 24 Potential.
FT PROPEP 25 34
FT CHAIN 37 175 Parathyroid hormone-related protein.
FT PEPTIDE 143 173 Osteostatin (By similarity).
FT MOTIF 108 129 Nuclear localization signal (By
FT similarity).
SQ SEQUENCE 175 AA; 20100 MW; 6D27CFCC31900B45 CRC64;

Query Match 83.5%; Score 616; DB 1; Length 175;
Best Local Similarity 86.5%; Pred. No. 1.4e-43;
Matches 122; Conservative 2; Mismatches 15; Indels 2; Gaps 1;

Qy 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSNPKNHPVRF 60
Db 37 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSNPKNHPVRF 96

Qy 61 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEKKRRTSRWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKEQPLTPGKKKGKPGKKEKKRRTSRWLDGVTGSG 154

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 155 LLEDPLPHTSRTSLPSLRTH 175

RESULT 15
Q540C1_MOUSE PRELIMINARY; PRT; 175 AA.
AC Q540C1;
DT 13-SEP-2005 (Tremblrel. 31, Created)
DT 13-SEP-2005 (Tremblrel. 31, Last sequence update)
DT 13-SEP-2005 (Tremblrel. 31, Last annotation update)
DE Parathyroid hormone-related protein precursor.
GN Name=Pthlh; Synonyms=Pthlp;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6;
RA Toribio R.E., Rourke K., Levine A., Kohn C.W., Rosol T.J.;
RT "Molecular cloning of the cDNA for Mus musculus parathyroid hormone-
RL related protein (PTHrP).";
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY220497; AAC064343.1; -; mRNA.
DR MGI; MGI:97800; Pthlh.
DR GO:0005615; C:extracellular space; TAS.
DR GO:0005179; F:hormone activity; TAS.
DR GO:0048286; P:alveolus development; IMP.
DR GO:0030855; P:epithelial cell differentiation; IMP.
DR GO:0001501; P:skeletal development; IMP.
DR GO:0043129; P:surfactant homeostasis; IMP.
KW Signal.
FT SIGNAL 1 36 Potential.
FT CHAIN 37 175 Parathyroid hormone-related protein.
SQ SEQUENCE 175 AA; 20100 MW; 6D27CFCC31900B45 CRC64;

Query Match 83.5%; Score 616; DB 2; Length 175;
Best Local Similarity 86.5%; Pred. No. 1.4e-43;

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:04:13 ; Search time 61.7865 Seconds
(without alignments)
219.572 Million cell updates/sec

Title: US-10-691-125-1

Perfect score: 738

Sequence: 1 AVSEHQLLHDKGKSIQLRR.....EGDHLSDTSTTSLELDSRRH 141

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR_80.*

1: pir1.*

2: pir2.*

3: pir3.*

4: pir4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	738	100.0	177	1 PTHU2L	parathyroid hormon
2	725	98.2	209	1 PTHU3L	parathyroid hormon
3	682	92.4	177	2 JC4201	parathyroid hormon
4	628	85.1	177	1 A30012	parathyroid hormon
5	616	83.5	175	1 JN0103	parathyroid hormon
6	521	70.6	176	1 S10202	parathyroid hormon
7	93	12.6	749	2 A45294	Balbani ring 2.1
8	91	12.3	1271	2 T24008	hypothetical prote
9	89	12.1	339	2 T04900	hypothetical prote
10	89	12.1	2664	2 T28626	variant-specific s
11	88.5	12.0	415	2 JC8023	nuclear NF-kB acti
12	87	11.8	780	2 S62480	pumilio domain con
13	86.5	11.7	222	2 T28919	hypothetical prote
14	86	11.7	643	2 A97234	ABC-type transport
15	85	11.5	218	2 T26826	hypothetical prote
16	85	11.5	925	2 S50490	hypothetical prote
17	84.5	11.4	568	1 RNN235	polymerase-associa
18	84	11.4	853	2 T51505	hypothetical prote
19	84	11.4	888	2 T25713	hypothetical prote
20	83.5	11.3	678	2 A54514	glutamic acid-rich
21	83.5	11.3	754	2 S63231	hypothetical prote
22	83.5	11.3	3147	2 T18674	hypothetical prote
23	82	11.1	374	2 C88734	protein F32E10.6 (
24	81.5	11.0	568	1 RNN283	polymerase-associa
25	81.5	11.0	691	2 T24438	hypothetical prote
26	81	11.0	273	2 A31215	histone H1-like pr
27	81	11.0	598	2 B40713	cyclicin I - human
28	81	11.0	754	1 JCS314	CDC28/cdc2-like ki
29	80.5	10.9	497	2 T40586	nucleolar protein

ALIGNMENTS

RESULT 1

PTHU2L

parathyroid hormone-related protein precursor, splice form 2 - human

N;Alternate names: parathyroid hormone-like protein

N;Contains: parathyroid hormone-related protein, splice form 1; parathyroid hormone-rela

C;Species: Homo sapiens (man)

C;Date: 31-Mar-1993 #sequence revision 31-Mar-1993 #text change 09-Jul-2004

C;Accession: A33360; B33360; A28120; A94295; B94295; A36166; A91606; A28034; A36512; J50

R;Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.

J. Biol. Chem. 264, 7720-7725, 1989

A;Title: Characterization of the human parathyroid hormone-like peptide gene. Functional

A;Reference number: A33360; MUID:89214227; PMID:2708388

A;Accession: A33360

A;Molecule type: DNA

A;Residues: 1-175 <YAS>

A;Cross-references: UNIPROT:P12272; UNIPARC:UPI0000002B1CC; GB:M24349; GB:J04710; NID:g19

A;Accession: B33360

A;Molecule type: DNA

A;Residues: 176-177 <VAS2>

A;Cross-references: UNIPARC:UPI00001734EA; GB:J04710

R;Mangin, M.; Webb, A.C.; Dreyer, B.E.; Foslillo, J.T.; Ikeda, K.; Weir, E.C.; Stewart,

Proc. Natl. Acad. Sci. U.S.A. 85, 597-601, 1988

A;Title: Identification of a cDNA encoding a parathyroid hormone-like peptide from a hum

A;Reference number: A28120; MUID:88124888; PMID:2829195

A;Accession: A28120

A;Molecule type: mRNA

A;Residues: 1-177 <MAN>

A;Cross-references: UNIPARC:UPI0000047E25; EMBL:J03580

R;Suva, L.J.; Winslow, G.A.; Wettenhall, R.E.H.; Hammonds, R.G.; Moseley, J.M.; Diefenba

Science 237, 893-896, 1987

A;Title: A parathyroid hormone-related protein implicated in malignant hypercalcemia; cl

A;Reference number: A94295; MUID:87292119; PMID:3616618

A;Accession: A94295

A;Molecule type: mRNA

A;Residues: 1-177 <SUUV1>

A;Cross-references: UNIPARC:UPI0000047E25; GB:M17183; NID:g190725; PIDN:AAA60221.1; PID

A;Accession: B94295

A;Molecule type: protein

A;Residues: 37-70,'X',72-84,'X',86;103-115 <SUUV2>

A;Cross-references: UNIPARC:UPI00001734EB; UNIPARC:UPI00001734EC

R;Thiede, M.A.; Strewler, G.J.; Nissen, R.A.; Rosenblatt, M.; Rodan, G.A.

Proc. Natl. Acad. Sci. U.S.A. 85, 4605-4609, 1988

A;Title: Human renal carcinoma expresses two messages encoding a parathyroid hormone-like

A;Reference number: A36166; MUID:88262996; PMID:3290897

A;Accession: A36166

A;Molecule type: mRNA

A;Residues: 1-175 <THI>

A;Cross-references: UNIPARC:UPI000002B1CC; GB:J03802; NID:g190717; PIDN:AAA60218.1; PID:

R;Suva, L.J.; Mather, K.A.; Gillespie, M.T.; Webb, G.C.; Ng, K.W.; Winslow, G.A.; Wood,

Gene 77, 95-105, 1989

A;Title: Structure of the 5' flanking region of the gene encoding human parathyroid-horm

A;Reference number: A91606; MUID:89306685; PMID:2744490

A;Residues: 1-177 <KAR>
A;Cross-references: UNIPROT:P13085; UNIPARC:UPI0000132905; GB:M34112; NID:G206229; PIDN:
A;Note: the authors translated the codon TAC for residue 114 as Thr
R;Yasuda, T.; Banville, D.; Rabbani, S.A.; Hendy, G.N.; Goltzman, D.
Mol. Endocrinol. 3, 518-525, 1989
A;Title: Rat parathyroid hormone-like peptide: comparison with the human homologue and e
A;Reference number: A34944; MUID:89313794; PMID:2747658
A;Accession: A34944
A;Molecule type: mRNA
A;Residues: 1-177 <YAS>
A;Cross-references: UNIPARC:UPI0000132905; GB:M31603; NID:G206486; PIDN:AAA41980.1; PID:
R;Thiede, M.A.; Rodan, G.A.
Science 242, 278-280, 1988
A;Title: Expression of a calcium-mobilizing parathyroid hormone-like peptide in lactatin
A;Reference number: A30012; MUID:89019361; PMID:3175653
A;Accession: A30012
A;Molecule type: mRNA
A;Residues: 1-177 <THI>
A;Cross-references: UNIPARC:UPI0000132905; EMBL:M21967; NID:G206488; PIDN:AAA41981.1; PI
R;Solfer, N.E.; Dee, K.E.; Insogna, K.L.; Burtis, W.J.; Matovicik, L.M.; Wu, T.L.; Milsted
J. Biol. Chem. 267, 18236-18243, 1992
A;Title: Parathyroid hormone-related protein. Evidence for secretion of a novel mid-regi
A;Reference number: A43416; MUID:92388199; PMID:15117251
A;Accession: A43416
A;Molecule type: protein
A;Residues: 'X', 75-84, 'S', 86-90, 'X', 92-93, 'X', 95-101, 'X', 103-105, 'X', 107 <SOI>
A;Cross-references: UNIPARC:UPI0000055C38
A;Experimental source: RIN-141 cells
A;Note: sequence extracted from NCBI backbone (NCBIP:112971)
C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
F:1-36/Domain: signal sequence #status predicted <SIG>
F:35-69/Domain: parathyroid hormone homology <PTH>
F:37-177/Product: parathyroid hormone-like protein #status predicted <MAT>
F:73-74/Cleavage site: Arg-Ala (unidentified proteinase) #status experimental

Query Match 85.1%; Score 628; DB 1; Length 177;
Best Local Similarity 88.2%; Pred. No. 8.2e-46;
Matches 127; Conservative 2; Mismatches 9; Indels 6; Gaps 3;
Qy 1 AVSEHQLLDKGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKHPVRFG 60
Db 37 AVSEHQLLDKGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKGKKEQKKRRTSAMLDSGVTCGSG 120
Db 97 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKGKKEQKKRRTSAMLDSGVTCGSG 154
Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 155 LLEDPLPHTSPTS-TSLPSSKTH 177

RESULT 5
JN0103
parathyroid hormone-related peptide precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: JN0103
R;Mangin, M.; Ikeda, K.; Broadus, A.E.
Gene 95, 195-202, 1990
A;Title: Structure of the mouse gene encoding parathyroid hormone-related peptide.
A;Reference number: JN0103; MUID:91065532; PMID:2249778
A;Accession: JN0103
A;Molecule type: DNA
A;Residues: 1-175 <MAN>
A;Cross-references: UNIPROT:P22858; UNIPARC:UPI0000299AE; GB:M60057; GB:M34098; NID:G20
C;Comment: The normal role of the parathyroid hormone-related peptide is unknown.
C;Genetics:
A;introns: 34/2; 173/2
C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-36/Domain: propeptide #status predicted <PRO>
F:35-69/Domain: parathyroid hormone homology <PTH>

F:37-175/Product: parathyroid hormone-related peptide #status predicted <MAT>
Query Match 83.5%; Score 616; DB 1; Length 175;
Best Local Similarity 86.5%; Pred. No. 8.3e-45;
Matches 122; Conservative 2; Mismatches 15; Indels 2; Gaps 1;
Qy 1 AVSEHQLLDKGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKHPVRFG 60
Db 37 AVSEHQLLDKGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKGKKEQKKRRTSAMLDSGVTCGSG 120
Db 97 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKGKKEQKKRRTSAMLDSGVTCGSG 154
Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 155 LLEDPLPHTSPTSLEPSLRTH 175

RESULT 6
S10202
parathyroid hormone-related protein precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S10202
R;Thiede, M.A.; Rutledge, S.J.
Nucleic Acids Res. 18, 3062, 1990
A;Title: Nucleotide sequence of a parathyroid hormone-related peptide expressed by the
A;Reference number: S10202; MUID:90272428; PMID:2349111
A;Accession: S10202
A;Molecule type: mRNA
A;Residues: 1-176 <THI>
A;Cross-references: UNIPROT:P17251; UNIPARC:UPI0000132902; EMBL:X52131; NID:G62973; PIDN:
C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-37/Domain: propeptide #status predicted <PRO>
F:36-70/Domain: parathyroid hormone homology <PTH>
F:38-176/Product: parathyroid hormone-related protein #status predicted <MAT>
F:110,157/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 70.6%; Score 521; DB 1; Length 176;
Best Local Similarity 75.9%; Pred. No. 8e-37;
Matches 101; Conservative 12; Mismatches 20; Indels 0; Gaps 0;
Qy 1 AVSEHQLLDKGSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKHPVRFG 60
Db 38 AVSEHQLLDKGSIQDLRRRFFLHLIAETAEIRATSEVSPNKPKPATNTKHPVRFG 97
Qy 61 SDDEGRYLTOETNKVETKQPLTPGKKKGKPKGKKEQKKRRTSAMLDSGVTCGSG 120
Db 98 SEDEGRYLTOETNKVETKQPLTPGKKKGKPKGKKEQKKRARSAMLNSGWSN 157
Qy 121 LEGDHLSDTSTTS 133
Db 158 VTESPVLDSVTT 170

RESULT 7
A45294
Balbiani ring 2.1 - midge (Chironomus tentans) (fragment)
C;Species: Chironomus tentans
C;Date: 25-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 05-Oct-2004
C;Accession: A45294
R;Wieslander, L.; Paulsson, G.
Proc. Natl. Acad. Sci. U.S.A. 89, 4578-4582, 1992
A;Title: Sequence organization of the Balbiani ring 2.1 gene in Chironomus tentans.
A;Reference number: A45294; MUID:92262483; PMID:1584794
A;Accession: A45294
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-749 <WIE>
A;Cross-references: UNIPROT:Q23804; UNIPARC:UPI0000076483; GB:M89909; NID:G156605; PIDN:

A;Note: sequence extracted from NCBI backbone (NCBIN:102269, NCBIN:102271, NCBIN:102273, C;Keywords: tandem repeat

Query Match 12.6%; Score 93; DB 2; Length 749;
Best Local Similarity 29.4%; Pred. No. 3.5;
Matches 32; Conservative 17; Mismatches 50; Indels 10; Gaps 4;

Qy 39 TSEYSPNSKPSNTKHPVRGSDDE--GRVLTQETNKVETKYEQPLKTPGKK-KGKPG 95
Db 138 TAGVKPTGKGKDKKN---KYDSDEETEIEIETETSEDKSESDETINKKKGKPG 194
Qy 96 KRKEQKKRRTRSAWLDSGVGTSGLEG---DHLSDTSTTSLELDSRR 140
Db 195 DEKEDSEKSSSSSEEPKPTKCEGAKAKAASDCAXANGDFDEKR 243

RESULT 8
T24008
hypothetical protein R07B5.8 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T24008
R;Kelly, P.
submitted to the EMBL Data Library, May 1996
A;Reference number: Z19829
A;Accession: T24008
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-1271 <WIL>
A;Cross-references: UNIPROT:Q21789; UNIPARC:UPI000017BAFF; EMBL:Z72512; PIDN:CAA96668.1;
A;Experimental source: clone R07B5
C;Genetics:
A;Gene: CESP:R07B5.8
A;Map position: 5
A;Introns: 34/1; 67/3; 129/3; 193/3; 313/2; 446/1; 479/2; 513/3; 571/3; 631/1; 845/3; 10

Query Match 12.3%; Score 91; DB 2; Length 1271;
Best Local Similarity 22.1%; Pred. No. 9.1;
Matches 31; Conservative 27; Mismatches 48; Indels 34; Gaps 4;

Qy 2 VSEHQLLDKGSIQDLRRFFLHLIAETHTABIRATS-----EVSPNSKPS----- 49
Db 605 LTDEEITVEENKQKQKQKQKIFTRCADSVLDKSNIREETPEDDPGPTSPGKRGKGNK 664

Qy 50 -PNTKNHPVRG-----SDEGYLTQETNKVE-----TYKEQPLKTPG 87
Db 665 CNNTSEPNPSGRKTSATSSGRGYRNRRRTDGTETEEEDDDPTDSEPLTTDDKPFETSV 724

Qy 88 KKKKGKPGKKEQKKEKRT 107
Db 725 NKEKNEKRRGKKVSKKRRS 744

RESULT 9
T04900
hypothetical protein T10114.20 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 09-Jul-2004
C;Accession: T04900
R;Bevan, M.; Murphy, G.; Ridley, P.; Hudson, S.; Bancroft, I.; Mewes, H.W.; Mayer, K.F.X
submitted to the Protein Sequence Database, April 1998
A;Reference number: Z15389
A;Accession: T04900
A;Molecule type: DNA
A;Residues: 1-339 <BEV>
A;Cross-references: UNIPROT:O49625; UNIPARC:UPI00000A8117; EMBL:AL021712
A;Experimental source: cultivar Columbia; BAC clone T10114
C;Genetics:
A;Map position: 4
A;Note: T10114.20

Query Match 12.1%; Score 89; DB 2; Length 339;
Best Local Similarity 26.3%; Pred. No. 3.2;

Matches 35; Conservative 22; Mismatches 42; Indels 34; Gaps 6;

Qy 2 VSEHQLLDKGSIQDLRRFFLHLIAETHTABIRATSEVSPN-----SKPSPNTKNHP 56
Db 53 LSADELFDH-----GVLPLDILLSVKSELQSDPNIAECDPDPSPSTGSLI 97
Qy 57 VRFSGDDE---GRVLTQETNKV---ETKYEQPLKTPGKKKGKPGKKEQKKEKRTS 109
Db 98 TEOKSDLEPGGLGSELTRRTVSKRWDRDIFRKSETKPPGKKE-----KVKENKKKKKTGS 152
Qy 110 AWLDSGVGTSGLE 122
Db 153 G--PSSGSGSGAE 163

RESULT 10
T28626
variant-specific surface protein 2 - malaria parasite (Plasmodium falciparum)
C;Species: Plasmodium falciparum
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T28626
R;Su, X.Z.; Heatwole, V.M.; Wertheimer, S.P.; Guinet, F.; Herrfeldt, J.A.; Peterson, D.S
Cell 82, 89-100, 1995
A;Title: The large diverse gene family var encodes proteins involved in cytoadherence and
A;Reference number: Z20487; MUID:95330813; PMID:7606788
A;Accession: T28626
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-2664 <SUX>
A;Cross-references: UNIPROT:Q26033; UNIPARC:UPI000007565C; EMBL:L40609; NID:g886376; PID
C;Genetics:
A;Introns: 2197/3
A;Note: var-2

Query Match 12.1%; Score 89; DB 2; Length 2664;
Best Local Similarity 27.5%; Pred. No. 30;
Matches 30; Conservative 18; Mismatches 49; Indels 12; Gaps 3;

Qy 24 LHLIAETHTABIRATSEVSPNSKPSNTKHPVRGSDDEGYLTQETNKVET--YKEQ 81
Db 2044 LNKLETKIHECKTQHSNVSNDQHPNCGNP-----PPDEEDLLLEENPVQPGGFCPT 2099
Qy 82 PLKTP-----GKKKGKPGKKEQKKEKRTSRAWLDSGVGTSGLEGD 124
Db 2100 PQQEPEDDKCGKLEEKKEKQEPQAPBEDGGAIVPSGPPGSEPAD 2148

RESULT 11
JC8023
nuclear NF-kB activating protein, NKAP - human
C;Species: Homo sapiens (man)
C;Date: 04-Apr-2004 #sequence_revision 04-Apr-2004 #text_change 04-Apr-2004
C;Accession: JC8023
R;Chen, D.; Li, Z.; Yang, O.; Zhang, J.; Zhai, Z.; Shu, H.B.
Biochem. Biophys. Res. Commun. 310, 720-724, 2003
A;Title: Identification of a nuclear protein that promotes NF-kB activation.
A;Reference number: JC8023; PMID: 14550261
A;Accession: JC8023
A;Molecule type: mRNA
A;Residues: 1-415 <CHE>
A;Experimental source: B-cells
C;Comment: This protein, that localizes in the nucleus, is a novel nuclear regulator in
C;Genetics:
A;Gene: nkaf
C;Keywords: IL-1; NKAP; nuclear protein; TNF

Query Match 12.0%; Score 88.5; DB 2; Length 415;
Best Local Similarity 26.9%; Pred. No. 4.4;
Matches 36; Conservative 25; Mismatches 52; Indels 21; Gaps 7;

Qy 8 LHDKGSIQDLRRFFLHLIAETHTABIRATSEVSPNSKPSNTKNH--PVRFGSDDEGR 66
Db 117 LLDKERESLRQKLSRERIGELGAPFVWG---LSPKN-PSPDSDEHTPV---EDEBP 169

Search completed: December 2, 2005, 23:29:11
Job time : 66.7865 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:03:56 ; Search time 389.73 Seconds
(without alignments)
158.962 Million cell updates/sec

Title: US-10-691-125-1
Perfect score: 738
Sequence: 1 AVSEHQLLHDKGKSIQDLRR.....EGDHLSDTSTSLSDLSRRH 141

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*
1: Geneseqp1980s:*
2: Geneseqp1990s:*
3: Geneseqp2000s:*
4: Geneseqp2001s:*
5: Geneseqp2002s:*
6: Geneseqp2003as:*
7: Geneseqp2003bs:*
8: Geneseqp2004s:*
9: Geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	738	100.0	141	2	Aaw99452 Human par
2	738	100.0	141	5	AAO14631 Human PTH
3	738	100.0	141	5	ABBO4992 Human par
4	738	100.0	141	5	AAE23749 Human par
5	738	100.0	141	8	ADPO4403 Human par
6	738	100.0	141	9	ADW99590 Human par
7	738	100.0	177	1	AAp80303 Sequence
8	738	100.0	177	1	AAp80304 Sequence
9	738	100.0	177	2	AAW12724 PTH-like
10	738	100.0	177	2	AAy41037 Human lun
11	738	100.0	177	2	AAy41038 Human lun
12	738	100.0	177	3	AAAB11323 Human lun
13	738	100.0	177	3	AAAB11322 Human lun
14	738	100.0	177	5	ABb74954 Human lun
15	738	100.0	177	5	ABb74955 Human lun
16	738	100.0	177	5	ABp61874 Human lun
17	738	100.0	177	5	ABp61875 Human lun
18	738	100.0	177	7	ADA28256 Human lun
19	738	100.0	177	7	ADA28255 Human lun
20	738	100.0	177	7	ADa28255 Human lun
21	738	100.0	177	7	ADe53460 Human lun
22	738	100.0	177	7	ADe53461 Human lun
23	738	100.0	177	7	ADH36819 Human lun
24	738	100.0	177	8	ADj36502 Human par

25	738	100.0	177	8	ADL12718 Human ste
26	738	100.0	177	8	Adm56622 Human lun
27	738	100.0	177	8	Adm56623 Human lun
28	738	100.0	177	9	ADu98314 Lung tumo
29	738	100.0	177	9	ADu98315 Lung tumo
30	738	100.0	177	9	AEb10123 Cancer re
31	738	100.0	177	9	AEb10122 Cancer re
32	738	100.0	210	2	AAr25227 Parathyro
33	725	98.2	139	5	AAO14630 Human PTH
34	725	98.2	139	5	ABb04991 Human par
35	725	98.2	139	5	AAe23750 Human par
36	725	98.2	139	5	ADp04402 Human par
37	725	98.2	173	5	AAO14632 Human PTH
38	725	98.2	173	5	ABb04993 Human par
39	725	98.2	173	8	ADp04404 Human par
40	725	98.2	175	6	ABu56498 Lung canc
41	725	98.2	175	6	ABu56578 Lung canc
42	725	98.2	175	6	ABr92141 Human cer
43	725	98.2	175	8	ADj36543 Human pro
44	725	98.2	175	8	ADk98647 Human par
45	725	98.2	175	8	ADu06427 Novel bro

ALIGNMENTS

RESULT 1
AAW99452
ID AAW99452 standard; peptide; 141 AA.
XX
AC AAW99452;
XX
DT 08-JUN-1999 (first entry)
XX
DE Human parathyroid hormone related protein.
XX
KW Parathyroid hormone; PTH; parathormone; premature birth; pregnancy;
KW spontaneous abortion; uterine contraction; human.
XX
OS Homo sapiens.
XX
PN US5880093-A.
XX
PD 09-MAR-1999.
XX
PF 05-APR-1995; 95US-00411726.
XX
PR 09-OCT-1992; 92IT-MI002331.
PR 08-OCT-1993; 93WO-EP002755.
XX
PA (BAGN/) BAGNOLI F.
XX
PI Bagnoli F;
XX
DR WPI; 1994-150943/18.
XX
PT Preventing abortion or premature birth - with parathyroid hormone or its fragments or related peptide(s), which inhibit contractions induced by oxytocin and FGF2 alpha.
XX
PS Disclosure; Col 9-10; 11pp; English.
XX
CC Peptides AAW99448-W99452 represent all or part of the parathyroid hormone (PTH; parathormone) sequence or related peptide. The peptides are used for preventing premature birth, spontaneous abortion or unwanted uterine contractions in a pregnant human patient. (Note: this patent is the first Major Country Equivalent to Italian Patent IT1255388)
XX
SQ Sequence 141 AA;

Query Match 100.0%; Score 738; DB 2; Length 141;
Best Local Similarity 100.0%; Pred. No. 5.6e-66;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLHDKGKSIQDLRRFFFLHLLIAETHTAEIRATSEVSPNSKPSNTKNHPVRF 60
 DB 1 AVSEHQLLHDKGKSIQDLRRFFFLHLLIAETHTAEIRATSEVSPNSKPSNTKNHPVRF 60
 QY 61 SDDEGRYLTOETNKVETYEKQPLKTPGKKKKGKPGKKEQKKRRTRSAWLDSGVGTSG 120
 DB 61 SDDEGRYLTOETNKVETYEKQPLKTPGKKKKGKPGKKEQKKRRTRSAWLDSGVGTSG 120
 QY 121 LEGDHLSDTSTTSLELDSRRH 141
 DB 121 LEGDHLSDTSTTSLELDSRRH 141
 RESULT 2
 AAO14631
 ID AAO14631 standard; protein; 141 AA.
 XX
 AC AAO14631;
 DT 30-MAY-2002 (first entry)
 XX
 DE Human PTHrP-related protein 2.
 XX
 KW Human; vascular relaxation agent; PTHrP; vascular relaxation inhibitor;
 KW myocardial infarction; hypertension; thrombosis;
 KW congestive heart failure; angina pectoris; hypertension;
 KW peripheral circulatory failure; multiple organ failure;
 KW lymphatic cancer metastasis; lymphatic edema; lymphnoditis;
 KW enteric lymphangiectasis; osteocarcinoma metastasis; bone necrosis;
 KW medullitis; bone roughening; bone Paget's disease;
 KW chronic rheumatoid arthritis; osteochondrosis; PTHrP-related protein.
 XX
 OS Homo sapiens.
 XX
 PN WO200213852-A1.
 XX
 PD 21-FEB-2002.
 XX
 PF 10-AUG-2001; 2001WO-JP006943.
 XX
 PR 11-AUG-2000; 2000JP-00243873.
 XX
 PA (CHUS) CHUGAI SEIYAKU KK.
 XX
 PI Ohhashi T;
 XX
 DR WPI; 2002-257548/30.
 XX
 PT Vascular relaxation agents containing PTHrP or its fragment, and vascular
 PT relaxation inhibitors containing substance inhibiting PTHrP from binding
 PT to its receptor, for e.g. hypotension and lymphatic cancer metastasis.
 XX
 PS Disclosure; Page 33-34; 44pp; Japanese.
 XX
 CC The invention comprises vascular relaxation agents that contain PTHrP,
 CC and vascular relaxation inhibitors that contain a substance that inhibits
 CC PTHrP from binding to its receptor. The vascular relaxation agents and
 CC vascular relaxation inhibitors are useful in treating diseases caused by
 CC vascular relaxation or contraction, such as: myocardial infarction;
 CC hypertension; thrombosis; congestive heart failure; angina pectoris;
 CC hypertension; peripheral circulatory failure; multiple organ failure;
 CC lymphatic cancer metastasis; lymphatic edema; lymphnoditis; enteric
 CC lymphangiectasis; metastasis of osteocarcinoma; bone necrosis; medullitis
 CC ; bone roughening; bone Paget's disease; chronic rheumatoid arthritis and
 CC osteochondrosis. The present amino acid sequence represents a human PTHrP
 CC -related protein
 XX
 SQ Sequence 141 AA;

Query Match 100.0%; Score 738; DB 5; Length 141;
 Best Local Similarity 100.0%; Pred. No. 5.6e-66;
 Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLHDKGKSIQDLRRFFFLHLLIAETHTAEIRATSEVSPNSKPSNTKNHPVRF 60
 DB 1 AVSEHQLLHDKGKSIQDLRRFFFLHLLIAETHTAEIRATSEVSPNSKPSNTKNHPVRF 60
 QY 61 SDDEGRYLTOETNKVETYEKQPLKTPGKKKKGKPGKKEQKKRRTRSAWLDSGVGTSG 120
 DB 61 SDDEGRYLTOETNKVETYEKQPLKTPGKKKKGKPGKKEQKKRRTRSAWLDSGVGTSG 120
 QY 121 LEGDHLSDTSTTSLELDSRRH 141
 DB 121 LEGDHLSDTSTTSLELDSRRH 141
 RESULT 3
 ABB04992
 ID ABB04992 standard; protein; 141 AA.
 XX
 AC ABB04992;
 DT 19-MAR-2002 (first entry)
 XX
 DE Human parathyroid hormone related protein (PTHrP) SEQ ID NO:2.
 XX
 KW Human; parathyroid hormone related protein; PTHrP; cytostatic;
 KW immunomodulator; antirheumatic; antiarthritic; analgesic; osteopathic;
 KW PTHrP(34-53) stimulation; cancer; cachexia; rheumatoid arthritis;
 KW bone metastasis; labour pain; anaemia; nerve pressure; osteoporosis.
 XX
 OS Homo sapiens.
 XX
 PN WO200182968-A1.
 XX
 PD 08-NOV-2001.
 XX
 PF 26-APR-2001; 2001WO-JP003665.
 XX
 PR 28-APR-2000; 2000JP-00131793.
 PR 09-JUN-2000; 2000JP-00173834.
 XX
 PA (CHUS) CHUGAI SEIYAKU KK.
 XX
 PI Yoshida A, Yanoma S, Hirose F;
 XX
 DR WPI; 2002-097475/13.
 XX
 PT PTHrP(1-34) cell growth inhibitor for treating cancer, cachexia,
 PT rheumatoid arthritis, bone metastasis, labor pain, anemia, nerve pressure
 PT and osteoporosis.
 XX
 PS Disclosure; Page 36; 45pp; Japanese.
 XX
 CC The present invention describes cell growth inhibitors (I) containing
 CC substances that inhibit parathyroid hormone related protein (PTHrP) (1-34)
 CC from binding to its receptor prevents growth stimulated by PTHrP(34-53).
 CC The present invention also describes: (1) a screening method for
 CC identifying substances that inhibit or stimulate cell growth, cell
 CC surface factor that binds to PTHrP(34-54); (2) a method for cloning its
 CC gene; (3) cell growth inhibitors containing substances that inhibit
 CC PTHrP(34-53) from binding to its receptor and prevents growth stimulated
 CC by PTHrP(34-53); (4) PTHrP biosynthesis inhibitors; and (5) cell lines
 CC with PTHrP(1-34) receptors that are stimulated to grow by PTHrP(34-53).
 CC (1) have cytostatic, immunomodulator, antirheumatic, antiarthritic,
 CC analgesic and osteopathic activities. (I) can be used for the treatment
 CC of disorders caused by PTHrP(34-53) stimulation, such as cancer,
 CC cachexia, rheumatoid arthritis, bone metastasis, labour pain, anaemia,
 CC nerve pressure and osteoporosis. The present sequence represents a human
 CC PTHrP which is given in the exemplification of the present invention
 XX
 SQ Sequence 141 AA;

Query Match 100.0%; Score 738; DB 5; Length 141;
 Best Local Similarity 100.0%; Pred. No. 5.6e-66;

1	AVSEQLLHDGKGIQDURRRFFLHLLIAELHIAETIATSEVSPNKPSPNTKNHPVREG	60
61	SDDEGRYLTDQTNKVETVYKEQPLTPGKKKKKGPGKEQEKKKRRTSAWLDSDGYTGS	120
61	SDDEGRYLTDQTNKVETVYKEQPLTPGKKKKKGPGKEQEKKKRRTSAWLDSDGYTGS	120
121	LEGDHLSDTSTTSLELDSRRH	141
121	LEGDHLSDTSTTSLELDSRRH	141

RESULT 5	
ADF04403	
ID	ADP04403 standard; protein; 141 AA.
XX	
XX	ADP04403;
XX	
XX	AC
XX	DT
XX	12-AUG-2004 (first entry)
XX	
DE	Human parathyroid hormone-related protein full-length protein variant 2.
XX	
KW	renal osteodystrophy; low metabolic bone turnover; parathyroid hormone;
KW	PTH; osteopathic; aplasia; high calcium food;
KW	parathyroid hormone-related protein; PTHrP; human.
XX	
XX	
OS	Homo sapiens.
XX	
PN	JP2004143107-A.
XX	
XX	
PD	20-MAY-2004.
XX	
XX	
PF	25-OCT-2002; 2002JP-00311119.
XX	
PR	25-OCT-2002; 2002JP-00311119.
XX	
XX	
PA	(KURE) KUREHA CHEM IND CO LTD.
XX	
XX	
DR	WPI: 2004-383277/36.

The invention relates to a novel pharmaceutical composition for treating renal osteodystrophy resulting from low metabolic turnover of bone, where the composition comprises a polypeptide which has parathyroid hormone (PTH) activity. The composition of the invention demonstrates osteopathic activity and may be useful for treating renal osteodystrophy resulting from low metabolic turnover of bone, such as bone aplasia. The treatment method involves administering the pharmaceutical composition along with high calcium foods and/or calcium pills. The current sequence is that of the human parathyroid hormone-related protein (PTHrP) full-length protein (variant 2) of the invention.

[illegible]

Db 121 LEGDHLSDTSTTSLELDSRRH 141
 121 LEGDHLSDTSTTSLELDSRRH 141
 121 LEGDHLSDTSTTSLELDSRRH 141

RESULT 6
 ADW99590
 ID ADW99590 standard; protein; 141 AA.
 XX AC ADW99590;
 XX
 DT 21-APR-2005 (first entry)
 XX
 DE Human parathyroid hormone-related peptide.
 XX
 KW recombinant protein; cytostatic; vaccine; immune stimulation;
 KW immunostimulatory; parathyroid hormone related peptide; tumor;
 KW metastasis.
 XX
 OS Homo sapiens.
 XX
 XX US2005033023-A1.
 XX
 XX 10-FEB-2005.
 XX
 XX 21-OCT-2003; 2003US-00691125.
 XX
 XX 21-OCT-2002; 2002US-0420165P.
 XX
 XX (CORR/) CORREALE P.
 XX (CUI/) CUSI M G.
 XX (FRAN/) FRANCINI G.
 XX
 XX Correale P, Cusi MG, Francini G;
 XX
 XX WPI: 2005-151693/16.
 XX N-PSDB; ADW99598.
 XX
 XX Novel isolated immunostimulatory parathyroid hormone related peptide (PTH
 XX -rp), useful for immunizing and treating subjects against metastases and
 XX tumors.
 XX
 XX Claim 1; SEQ ID NO 1; 35pp; English.
 XX
 XX The invention relates to an isolated immunostimulatory parathyroid
 XX hormone related peptide (PTH-rp) (I) comprising a fragment of the amino
 XX acid sequence of a fully defined sequence (S1) of 141 amino acids as
 XX given in the specification, or its functional variant comprising one or
 XX more amino acid additions, substitution or deletions. (I) is useful for
 XX generating T cells active against PTH-rp expressing tumors and
 XX metastasis, which involves stimulating T cells in the presence of antigen
 XX presenting cells that have been exposed to (I). The antigen presenting
 XX cells have been infected with virosmes containing PTH-rp plasmids,
 XX virosmes encapsulating (I) or virosmes comprising (I) crosslinked to
 XX its surface. (I) is useful for generating a T cell response specific for
 XX PTH-rp, which involves immunizing a subject with (I). The protein, an
 XX epitope from it, DNA encoding it, vectors and host cells are useful for
 XX inducing an immune response against PTH-rp expressing tumors and
 XX metastasis, by immunization. They are useful for treating PTH-rp
 XX expressing tumors and metastasis, immunizing a subject against metastasis
 XX and tumors or for preventing the occurrence or recurrence of PTH-rp
 XX expressing tumors and metastasis. This sequence corresponds to the human
 XX parathyroid hormone-related peptide.

Query Match 100.0%; Score 738; DB 9; Length 141;
 Best Local Similarity 100.0%; Pred. No. 5.6e-66;
 Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLDKKGSIQDLRRRFFLHLLIAETIRATSEVSPNSKPSPTKNHPVRF 60
 1 AVSEHQLLDKKGSIQDLRRRFFLHLLIAETIRATSEVSPNSKPSPTKNHPVRF 60

Db 61 SDDEGYLTQETNKVETKEQPLKTPGKKKGKPGKRKEQKKKRTTSALWDSGVTTGSG 120
 61 SDDEGYLTQETNKVETKEQPLKTPGKKKGKPGKRKEQKKKRTTSALWDSGVTTGSG 120

QY 121 LEGDHLSDTSTTSLEDSRRH 141
|||||
Db 157 LEGDHLSDTSTTSLEDSRRH 177

RESULT 8

AAAP80304
ID AAP80304 standard; peptide; 177 AA.

XX AC AAP80304;

XX DT 25-MAR-2003 (revised)

XX DT 04-OCT-1990 (first entry)

XX DE Sequence of human adenylate cyclase stimulating factor.

XX ADenylate cyclase stimulating factor; parathyroid hormone.

XX OS Homo sapiens.

XX PN W08809376-A.

XX PD 01-DEC-1988.

XX PF 19-MAY-1988; 88WO-US001652.

XX PR 20-MAY-1987; 87US-00052637.

XX PA (GETH) GENENTECH INC.

XX PA (UYME) UNIV MELBOURNE.

XX PI Martin TJ, Suva LJ, Wood WL;

XX DR WPI; 1988-353951/49.

XX PT Recombinant adenylate Cyclase Stimulating factor - used to produce
XX PT antibodies for detection and treatment of humoral hypercalcaemia of
XX PT malignancy.

XX PS Disclosure; Page ?; 48pp; English.

XX CC The sequence is of human adenylate cyclase stimulating factor (ACSF),
XX CC which has areas of homology with human, bovine, porcine and rat
XX CC parathyroid hormone (PTH). It has PTH receptor binding activity and bone
XX CC resorbing activity. ACSF antagonists, ACSF neutralising antibodies (Ab)
XX CC or immunogens capable of raising Ab can be used to ameliorate humoral
XX CC hypercalcaemia of malignancy, most commonly breast, lung and skin
XX CC carcinomas, and to treat disorders of hyperproliferation of
XX CC keratinocytes, e.g. psoriasis. (Updated on 25-MAR-2003 to correct PA
XX CC field.) (Updated on 25-MAR-2003 to correct PI field.)

XX SQ Sequence 177 AA;

Query Match 100.0%; Score 738; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 7.3e-66;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKKGKSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKNHPVRFG 60

Db 37 AVSEHQLLDKKGKSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKNHPVRFG 96

QY 61 SDDEGRYLTOETNKVETKEQPLKTPGKKKGKPGKRKEQKKRTRTSAMLDSGVTGSG 120

Db 97 SDDEGRYLTOETNKVETKEQPLKTPGKKKGKPGKRKEQKKRTRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLEDSRRH 141

Db 157 LEGDHLSDTSTTSLEDSRRH 177

RESULT 9

AAW12724

ID AAW12724 standard; protein; 177 AA.

XX AC AAW12724;

XX DT 25-MAR-2003 (revised)

XX DT 07-JUL-1997 (first entry)

XX DE PTH-like peptide HHM-8.

XX KW PTH-like peptide; parathyroid hormone; parathormone; agonist;
XX KW adenylate cyclase; humoral hypercalcaemia of malignancy; HHM;
XX KW tumour marker; cancer; diagnosis.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers

XX FT Peptide 1..36

XX FT Protein /label= Sig_peptide

XX FT /label= Mat_protein

XX PN US5605815-A.

XX PD 25-FEB-1997.

XX PF 21-JUN-1994; 94US-00263242.

XX PR 14-MAR-1988; 88US-00167593.

XX PR 18-FEB-1992; 92US-00839722.

XX PA (UYUA) UNIV YALE.

XX PI Mangin M, Broadus AE, Stewart AF;

XX DR WPI; 1997-153577/14.

XX DR N-FSDB; AAT59700.

XX CC DNA encoding parathyroid hormone-like peptide - for prodn. of recombinant
XX CC peptide, used to diagnose humoral hypercalcaemia of malignancy.

XX PS Disclosure; Fig 1; 15pp; English.

XX CC Parathyroid hormone (PTH)-like peptide (AAW12724) is an adenylate cyclase
XX CC -stimulating protein which acts through PTH receptors but which is
XX CC unrelated genomically to PTH. It is the humoral mediator of humoral
XX CC hypercalcaemia of malignancy (HHM), which is common in patients with
XX CC squamous carcinomas or renal, bladder or ovarian carcinomas with
XX CC little or no evidence of skeletal disease, and can be used as a tumour
XX CC marker. The PTH-like peptide amino acid sequence was deduced from a DNA
XX CC clone, HHM-8 (AAT59700), obtd. from SKRC-1 cells; another isolated clone,
XX CC HHM-4 (AAT59701), coded for a PTH-like peptide (AAW12725) having a
XX CC different C-terminal sequence. (Updated on 25-MAR-2003 to correct PF
XX CC field.)

XX SQ Sequence 177 AA;

Query Match 100.0%; Score 738; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 7.3e-66;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLDKKGKSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKNHPVRFG 60

Db 37 AVSEHQLLDKKGKSIQDLRRRFFLHLIAETAEIRATSEVSPNSKSPNTKNHPVRFG 96

QY 61 SDDEGRYLTOETNKVETKEQPLKTPGKKKGKPGKRKEQKKRTRTSAMLDSGVTGSG 120

Db 97 SDDEGRYLTOETNKVETKEQPLKTPGKKKGKPGKRKEQKKRTRTSAMLDSGVTGSG 156

QY 121 LEGDHLSDTSTTSLEDSRRH 141

Db 157 LEGDHLSDTSTTSLEDSRRH 177

RESULT 10

```
AAAY41037
ID AAY41037 standard; protein; 177 AA.
AC AAY41037;
XX
XX
XX 07-DEC-1999 (first entry)
XX
XX
XX Human lung tumor antigen L524S variant 1.
XX
XX Human; lung tumor; lung cancer; T cell stimulation.
XX
XX Homo sapiens.
XX
XX WO9947674-A2.
XX
XX 23-SEP-1999.
XX
XX 17-MAR-1999; 99WO-US005798.
XX
XX 18-MAR-1998; 98US-00040802.
XX
XX 18-MAR-1998; 98US-00040984.
XX
XX 27-JUL-1998; 98US-00123912.
XX
XX 27-JUL-1998; 98US-00123933.
XX
XX (CORI-) CORIXA CORP.
XX
XX Reed SG, Wang T;
XX
XX WPI; 1999-571839/48.
XX
XX N-PSDB; AAZ24655.
XX
XX New isolated lung tumor polynucleotides, used to develop products for the
XX treatment, prevention and monitoring the progression of lung cancer.
XX
XX Example 2; Page 140-141; 148pp; English.
XX
XX The invention provides isolated human lung tumor nucleic acids and
XX polypeptides. The polypeptides can be used for the treatment of lung
XX cancer. The polypeptides and polynucleotides can be used to stimulate T
XX cells or antigen presenting cells for use in the treatment of lung
XX cancer. The polypeptides and monoclonal antibodies specific for the
XX polypeptides can also be used to inhibit the development of lung cancer.
XX Agents which bind the polypeptides can be used for detecting lung cancer
XX and for monitoring the progression of lung cancer
XX
XX Sequence 177 AA;
XX
XX Query Match 100.0%; Score 738; DB 2; Length 177;
XX Best Local Similarity 100.0%; Pred. No. 7.3e-66;
XX Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
XX DB 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96
XX
XX QY 61 SDDEGRYLTQETNKVETKEQPLKTPGKKKGKPGKKEQKKRRTSAWLDGVTGSG 120
XX DB 97 SDDEGRYLTQETNKVETKEQPLKTPGKKKGKPGKKEQKKRRTSAWLDGVTGSG 156
XX
XX QY 121 LEGDHLSDTSTTSLELDSRRH 141
XX DB 157 LEGDHLSDTSTTSLELDSRRH 177
XX
XX RESULT 12
XX AAB11323
XX ID AAB11323 standard; protein; 177 AA.
XX
XX AC AAB11323;
XX
XX 21-FEB-2001 (first entry)
XX
XX Human lung cancer-associated protein L524S variant 2.
XX
XX Lung cancer; therapy; treatment; human; tumor; immunogenic; cytostatic;
XX vaccine; detection.
XX
XX Homo sapiens.
XX
XX WO200061612-A2.
XX
XX
```

```
AAAY41037
ID AAY41037 standard; protein; 177 AA.
AC AAY41037;
XX
XX
XX 07-DEC-1999 (first entry)
XX
XX
XX Human lung tumor antigen L524S variant 1.
XX
XX Human; lung tumor; lung cancer; T cell stimulation.
XX
XX Homo sapiens.
XX
XX WO9947674-A2.
XX
XX 23-SEP-1999.
XX
XX 17-MAR-1999; 99WO-US005798.
XX
XX 18-MAR-1998; 98US-00040802.
XX
XX 18-MAR-1998; 98US-00040984.
XX
XX 27-JUL-1998; 98US-00123912.
XX
XX 27-JUL-1998; 98US-00123933.
XX
XX (CORI-) CORIXA CORP.
XX
XX Reed SG, Wang T;
XX
XX WPI; 1999-571839/48.
XX
XX N-PSDB; AAZ24655.
XX
XX New isolated lung tumor polynucleotides, used to develop products for the
XX treatment, prevention and monitoring the progression of lung cancer.
XX
XX Example 2; Page 140-141; 148pp; English.
XX
XX The invention provides isolated human lung tumor nucleic acids and
XX polypeptides. The polypeptides can be used for the treatment of lung
XX cancer. The polypeptides and polynucleotides can be used to stimulate T
XX cells or antigen presenting cells for use in the treatment of lung
XX cancer. The polypeptides and monoclonal antibodies specific for the
XX polypeptides can also be used to inhibit the development of lung cancer.
XX Agents which bind the polypeptides can be used for detecting lung cancer
XX and for monitoring the progression of lung cancer
XX
XX Sequence 177 AA;
XX
XX Query Match 100.0%; Score 738; DB 2; Length 177;
XX Best Local Similarity 100.0%; Pred. No. 7.3e-66;
XX Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
XX DB 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96
XX
XX QY 61 SDDEGRYLTQETNKVETKEQPLKTPGKKKGKPGKKEQKKRRTSAWLDGVTGSG 120
XX DB 97 SDDEGRYLTQETNKVETKEQPLKTPGKKKGKPGKKEQKKRRTSAWLDGVTGSG 156
XX
XX QY 121 LEGDHLSDTSTTSLELDSRRH 141
XX DB 157 LEGDHLSDTSTTSLELDSRRH 177
XX
XX RESULT 11
XX AAY41038
XX ID AAY41038 standard; protein; 177 AA.
XX
XX AC AAY41038;
XX
XX 07-DEC-1999 (first entry)
XX
XX Human lung tumor antigen L524S variant 2.
XX
```


PD	XX	19-OCT-2000.
PF	XX	03-APR-2000; 2000WO-US008896.
PR	XX	02-APR-1999; 99US-00285479.
PR	XX	17-DEC-1999; 99US-00466396.
PR	XX	30-DEC-1999; 99US-00476496.
PR	XX	10-JAN-2000; 2000US-00480884.
PR	XX	22-FEB-2000; 2000US-00510376.
PA	XX	(CORI-) CORIXA CORP.
PI	XX	Wang T, Fan L;
DR	XX	WPI; 2000-628399/60.
DR	XX	N-PSDB; AAC65895.
PT	XX	Isolated polypeptide comprising an immunogenic portion of a lung tumor protein used for detecting and monitoring progression of lung cancer in a patient.
PS	XX	Claim 3; Page 174; 261pp; English.
CC	XX	This invention describes a novel isolated polypeptide (I) which comprising an immunogenic portion of a lung tumor protein or variant (P2) which have cytostatic activity. The polypeptides and polynucleotides are used in compositions and vaccines to inhibit the development of cancer, especially lung cancer, in a patient. Methods described in the invention can be used to monitor the progression of a cancer by carrying out the detection at subsequent time points and comparing the results from the different time points. CD4+ and/or CD8+ T-Cells isolated from a patient are treated with P2, polynucleotides encoding P2 or antigen presenting cells expressing P2 and then administered to the patient to inhibit development of cancer.
SQ	XX	Sequence 177 AA;
		Query Match 100.0%; Score 738; DB 3; Length 177; Best Local Similarity 100.0%; Pred. No. 7.3e-66; Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy	Db	1 AVSEHQLLHDKGSIQDLRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 60 37 AVSEHQLLHDKGSIQDLRRFFLHLIAEIHHTAEIRATSEVSPNSKPSNTKNHPVRFG 96
Qy	Db	61 SDDEGRYLTOETNKKVTYKEQLTPGKKKGPKGRKEQKKKRTRSAWLDSGVGTSG 120 97 SDDEGRYLTOETNKKVTYKEQLTPGKKKGPKGRKEQKKKRTRSAWLDSGVGTSG 156
Qy	Db	121 LEGDHLSDTSTTSLELDSSRH 141 157 LEGDHLSDTSTTSLELDSSRH 177
RESULT 13		
AAB11322		ID AAB11322 standard; protein; 177 AA.
AC	XX	AAB11322;
DT	XX	21-FEB-2001 (first entry)
DE	XX	Human lung cancer-associated protein L524S variant 1.
KW	XX	Lung cancer; therapy; treatment; human; tumor; immunogenic; cytostatic; vaccine; detection.
OS	XX	Homo sapiens.
PN	XX	WO2000061612-A2.
PP	XX	19-OCT-2000.
PX	XX	

PR 28-JUN-2000; 2000US-00606421.
 PR 02-AUG-2000; 2000US-00630940.
 PR 21-AUG-2000; 2000US-00643597.
 PR 15-SEP-2000; 2000US-00662786.
 PR 09-OCT-2000; 2000US-00685696.
 PR 12-DEC-2000; 2000US-00735705.
 PR 07-MAY-2001; 2001US-00850716.

XX (CORI-) CORIXA CORP.
 XX

XX Wang T, Wang A, Skeiky YAW, Li SX, Kalos MD, Henderson RA;
 PI McNeill PD, Fanger N, Retter MW, Marnerakis M, Fanger GR;
 PI Vedvick TS, Carter D, Watanabe Y, Peckham DW;
 XX

DR WPI; 2002-090513/12.
 DR N-PSDB; ABL49113.

XX Polynucleotides encoding lung tumor polypeptides, useful for treating
 PT lung cancer or stimulating an immune response.
 PT

XX Example 2; Page 256-257; 374pp; English.
 PS

XX The present invention describes human lung tumour proteins. Human lung
 CC tumour proteins and polynucleotides have cytostatic and immunostimulant
 CC activities, and can be used in vaccine production. Compositions
 CC comprising the lung tumour proteins, polynucleotides, antibodies, fusion
 CC proteins, T cell populations, or antigen presenting cells that express
 CC the lung tumour proteins are useful for treating lung cancer or
 CC stimulating an immune response. ABL48959 to ABL49300 and ABB74946 to
 CC ABB75070 represent sequences used in the exemplification of the present
 CC invention
 CC

XX Sequence 177 AA;
 SQ

Query Match 100.0%; Score 738; DB 5; Length 177;
 Best Local Similarity 100.0%; Pred. No. 7.3e-66;
 Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEIHIAEIRATSEVSPNSKPSNTKNHPVRFG 60
 DB 37 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEIHIAEIRATSEVSPNSKPSNTKNHPVRFG 96
 QY 61 SDDEGRYLTOETNKVETKQPLTPGKKGKPGKRKEQKKRRTRSAWLDSGVTGSG 120
 DB 97 SDDEGRYLTOETNKVETKQPLTPGKKGKPGKRKEQKKRRTRSAWLDSGVTGSG 156
 QY 121 LEGDHLSDTSTTSLELDSRRH 141
 DB 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 15
 ABB74955
 ID ABB74955 standard; protein; 177 AA.
 AC
 AC ABB74955;
 XX

XX 01-MAY-2002 (first entry)
 XX
 XX Human lung tumour L524S variant protein sequence SEQ ID NO:166.

XX Human; lung tumour; lung cancer; cytostatic; immunostimulant; vaccine;
 KW immune response.
 XX

OS Homo sapiens.
 XX
 XX WO200200174-A2.
 PN

XX 03-JAN-2002.
 PD

XX 28-JUN-2001; 2001WO-US021065.
 XX
 XX 28-JUN-2000; 2000US-00606421.

PR 02-AUG-2000; 2000US-00630940.
 PR 21-AUG-2000; 2000US-00643597.
 PR 15-SEP-2000; 2000US-00662786.
 PR 09-OCT-2000; 2000US-00685696.
 PR 12-DEC-2000; 2000US-00735705.
 PR 07-MAY-2001; 2001US-00850716.

XX (CORI-) CORIXA CORP.
 XX

XX Wang T, Wang A, Skeiky YAW, Li SX, Kalos MD, Henderson RA;
 PI McNeill PD, Fanger N, Retter MW, Marnerakis M, Fanger GR;
 PI Vedvick TS, Carter D, Watanabe Y, Peckham DW;
 XX

DR WPI; 2002-090513/12.
 DR N-PSDB; ABL49114.

XX Polynucleotides encoding lung tumor polypeptides, useful for treating
 PT lung cancer or stimulating an immune response.
 PT

XX Example 2; Page 257; 374pp; English.
 PS

XX The present invention describes human lung tumour proteins. Human lung
 CC tumour proteins and polynucleotides have cytostatic and immunostimulant
 CC activities, and can be used in vaccine production. Compositions
 CC comprising the lung tumour proteins, polynucleotides, antibodies, fusion
 CC proteins, T cell populations, or antigen presenting cells that express
 CC the lung tumour proteins are useful for treating lung cancer or
 CC stimulating an immune response. ABL48959 to ABL49300 and ABB74946 to
 CC ABB75070 represent sequences used in the exemplification of the present
 CC invention
 CC

XX Sequence 177 AA;
 SQ

Query Match 100.0%; Score 738; DB 5; Length 177;
 Best Local Similarity 100.0%; Pred. No. 7.3e-66;
 Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEIHIAEIRATSEVSPNSKPSNTKNHPVRFG 60
 DB 37 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEIHIAEIRATSEVSPNSKPSNTKNHPVRFG 96
 QY 61 SDDEGRYLTOETNKVETKQPLTPGKKGKPGKRKEQKKRRTRSAWLDSGVTGSG 120
 DB 97 SDDEGRYLTOETNKVETKQPLTPGKKGKPGKRKEQKKRRTRSAWLDSGVTGSG 156
 QY 121 LEGDHLSDTSTTSLELDSRRH 141
 DB 157 LEGDHLSDTSTTSLELDSRRH 177

Search completed: December 2, 2005, 23:27:47
 Job time : 395.73 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:03:56 ; Search time 24.8764 Seconds
(without alignments)
158.962 Million cell updates/sec

Title: US-10-691-125-2
Perfect score: 46
Sequence: 1 AVSEHQLLH 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A Geneseq_21:*
1: Geneseqp1980s:*
2: Geneseqp1990s:*
3: Geneseqp2000s:*
4: Geneseqp2001s:*
5: Geneseqp2002s:*
6: Geneseqp2003as:*
7: Geneseqp2003bs:*
8: Geneseqp2004s:*
9: Geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	46	100.0	9	3 AAB01864	Aab01864 PTH(1-14)
2	46	100.0	9	3 AAY97062	Aay97062 PTH-rp N-
3	46	100.0	9	9 ADW99591	Adw99591 Human par
4	46	100.0	10	8 ADJ36544	Adj36544 Parathyro
5	46	100.0	12	2 AA45785	Aa45785 Parathyro
6	46	100.0	14	3 AAB01860	Aab01860 Human par
7	46	100.0	14	4 AAB96895	Aab96895 Human par
8	46	100.0	14	4 AAB84774	Aab84774 Native pa
9	46	100.0	16	1 AAP82548	Aap82548 (Asn10) P
10	46	100.0	17	1 AAP82549	Aap82549 (Glu8, As
11	46	100.0	19	2 AAR41444	Aar41444 Synthetic
12	46	100.0	21	2 AAR69061	Aar69061 Met-hPTHr
13	46	100.0	24	1 AAP80301	Aap80301 Sequence
14	46	100.0	24	1 AAP81358	Aap81358 Sequence
15	46	100.0	29	5 AAU73164	Aau73164 Parathyro
16	46	100.0	29	8 ADQ75479	Adq75479 PTH/PTHrP
17	46	100.0	30	5 AAU73167	Aau73167 Parathyro
18	46	100.0	30	5 AAU73091	Aau73091 Parathyro
19	46	100.0	30	5 AAU73149	Aau73149 Parathyro
20	46	100.0	30	5 AAU73157	Aau73157 Parathyro
21	46	100.0	30	5 AAU73165	Aau73165 Parathyro
22	46	100.0	30	5 AAU73159	Aau73159 Parathyro
23	46	100.0	30	5 AAU73148	Aau73148 Parathyro
24	46	100.0	30	5 AAU73163	Aau73163 Parathyro

25	46	100.0	30	5 AAU73150	Aau73150 Parathyro
26	46	100.0	30	5 AAU73161	Aau73161 Parathyro
27	46	100.0	30	5 AAU73147	Aau73147 Parathyro
28	46	100.0	30	5 AAU73168	Aau73168 Parathyro
29	46	100.0	30	5 AAU73088	Aau73088 Parathyro
30	46	100.0	30	5 AAU73160	Aau73160 Parathyro
31	46	100.0	30	5 AAU73166	Aau73166 Parathyro
32	46	100.0	30	5 AAU73146	Aau73146 Parathyro
33	46	100.0	30	5 AAU73156	Aau73156 Parathyro
34	46	100.0	30	5 AAU73169	Aau73169 Parathyro
35	46	100.0	30	8 ADQ75484	Adq75484 PTH/PTHrP
36	46	100.0	30	8 ADQ75465	Adq75465 PTH/PTHrP
37	46	100.0	30	8 ADQ75474	Adq75474 PTH/PTHrP
38	46	100.0	30	8 ADQ75483	Adq75483 PTH/PTHrP
39	46	100.0	30	8 ADQ75462	Adq75462 PTH/PTHrP
40	46	100.0	30	8 ADQ75461	Adq75461 PTH/PTHrP
41	46	100.0	30	8 ADQ75482	Adq75482 PTH/PTHrP
42	46	100.0	30	8 ADQ75403	Adq75403 PTH/PTHrP
43	46	100.0	30	8 ADQ75463	Adq75463 PTH/PTHrP
44	46	100.0	30	8 ADQ75472	Adq75472 PTH/PTHrP
45	46	100.0	30	8 ADQ75476	Adq75476 PTH/PTHrP

ALIGNMENTS

RESULT 1
AAB01864
ID AAB01864 standard; peptide; 9 AA.
XX AC AAB01864;
XX DT 11-SEP-2000 (first entry)
XX DE PTH(1-14)/PTHrP(1-14)-derived peptide, SEQ ID NO:8.
XX KW Parathyroid hormone peptide; PTH; PTH-related peptide; PTHrP;
XX KW calcium homeostasis; PTH-1 receptor; PTH-2; vitamin D synthesis;
XX KW bone synthesis; agonist; osteoporosis; non-parenteral delivery.
XX OS Homo sapiens.
XX OS Synthetic.
XX FN WO200023594-A1.
XX PD 27-APR-2000.
XX PF 20-OCT-1999; 99WO-US024481.
XX PR 22-OCT-1998; 98US-0105530P.
XX PR (GARD/) GARDELLA T J.
XX PA (KRON/) KRONENBERG H M.
XX PA (POTT/) POTTS J T.
XX PA (JUEP/) JUEPPNER H.
XX PI Gardella TJ, Kronenberg HM, Potts JT, Jueppner H;
XX WPI; 2000-339693/29.
XX DR Parathyroid hormone (PTH) peptides, PTH related peptides and the nucleic
XX PT acids that encode them, useful for treating osteoporosis.
XX PT Disclosure; Page 26; 73pp; English.
XX FS The invention relates to a novel parathyroid hormone (PTH) peptide
XX CC (AAB01859) and parathyroid hormone-related peptide (PTHrP; AAB01860), and
XX CC biologically active derivatives thereof (AAB01857-B01858; AAB01861-
XX CC B01869). The peptides of the invention are at least 85% identical to the
XX CC generic peptide of the formula: X1-Val-Ser-Glu-X2-Gln-Leu-X3-His-X4-X5-
XX CC Gly-Lys-X6 (AAB01857) where: X1 is Ser or Ala; X2 is Ile or Lys; X3 is
XX CC Met, Leu or Nle; X4 is Asn or Asp; X5 is Leu or Lys; X6 is His or Ser;
XX CC provided that the peptide is not PTHrP(1-14). The peptides of the

CC metastasis, which involves stimulating T cells in the presence of antigen
 CC presenting cells that have been exposed to (I). The antigen presenting
 CC cells have been infected with virosmes containing PTH-rp plasmids,
 CC virosmes encapsulating (I) or virosmes comprising (I) crosslinked to
 CC its surface. (I) is useful for generating a T cell response specific for
 CC PTH-rp, which involves immunizing a subject with (I). The protein, an
 CC epitope from it, DNA encoding it, vectors and host cells are useful for
 CC inducing an immune response against PTH-rp expressing tumors and
 CC metastasis, by immunization. They are useful for treating PTH-rp
 CC expressing tumors and metastasis, immunizing a subject against metastasis
 CC and tumors or for preventing the occurrence or recurrence of PTH-rp
 CC expressing tumors and metastasis. This sequence corresponds to a peptide
 CC from the human PTH-rp protein.

XX Sequence 9 AA;

Query Match 100.0%; Score 46; DB 9; Length 9;
 Best Local Similarity 100.0%; Pred. NO. 2e+06;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9

Db 1 AVSEHQQLLH 9

RESULT 4

ID ADJ36544 standard; peptide; 10 AA.

XX AC ADJ36544;

XX DT 22-APR-2004. (first entry)

XX Parathyroid hormone related peptide N-terminus.

XX parathyroid hormone related peptide; PTH; angiogenesis; apoptosis;
 KW endothelial cell; protein kinase A catalytic subunit; restenosis;
 KW atherosclerosis; cancer; tumor metastasis; fibrosis; haemangioma;
 KW lymphoma; leukaemia; psoriasis; arthritis; diabetes;
 KW amyotrophic lateral sclerosis; graft rejection; retinopathy;
 KW macular degeneration; retinal tearing; autoimmune disease; Lupus;
 KW Crohn's disease; multiple sclerosis.

XX Unidentified.

XX WO2004001384-A2.

XX PD 31-DEC-2003.

XX PF 25-JUN-2003; 2003WO-US020041.

XX PR 25-JUN-2002; 2002US-0391484P.

XX PA (REGC) UNIV CALIFORNIA.

XX PI Varner JA, Bakre M, Jin H;

XX DR WPI; 2004-071778/07.

XX Reducing angiogenesis or increasing cell apoptosis, useful in treating
 PT cancer, fibrosis, autoimmune disease, diabetes or graft rejection, by
 PT providing endothelial cells and nucleotide sequence encoding a protein
 PT kinase A catalytic subunit.

XX Claim 17; SEQ ID NO 114; 266pp; English.

XX The invention relates to reducing angiogenesis or increasing cell
 CC apoptosis in subject comprising providing a subject comprising tissue
 CC that has endothelial cells and at least one nucleotide sequence encoding
 CC a protein comprising a protein kinase A catalytic subunit and expressing
 CC the nucleotide sequence in the endothelial cells so that angiogenesis by
 CC the endothelial cells is reduced or apoptosis of the cells is increased.
 CC Alternatively, the nucleic acid may encode a parathyroid hormone (PTH) or

CC PTH-related peptide. The method comprises providing a subject comprising
 CC tissue that comprises endothelial cells and at least one agent, e.g.
 CC pertussis toxin, cholera toxin, G alpha i minigene, dominant negative G
 CC alpha i, dominant negative G alpha 12/13, constitutively active G alpha
 CC s anti-CD47 antibody, dominant positive Rho (RhoV14), dominant negative
 CC Src or active Cdk and treating the endothelial cells with at least one
 CC agent such that the angiogenesis by the endothelial cells is reduced or
 CC apoptosis of the cells is increased. The agent may alternatively be an
 CC Src inhibitor. The method further comprises detecting a reduction in
 CC angiogenesis by the endothelial cells or an increase in apoptosis of the
 CC cells. The subject is human, who has a pathological condition associated
 CC with angiogenesis in the tissue. The tissue comprises at least one of
 CC ocular tissue, skin tissue, bone tissue or synovial tissue, where the
 CC tissue comprises a malignant tumour, i.e. metastatic. The cell is chosen
 CC from endothelial, vascular smooth muscle, monocyte, macrophage, benign
 CC tumour, malignant tumour, fibroblast, B, myocyte, megakaryocyte,
 CC eosinophil, neutrite or synovocyte cell. The pathological condition is
 CC fibrosis and the tissue is selected from heart, lung or liver. The method
 CC is useful for reducing angiogenesis or increasing cell apoptosis and in
 CC treating angiogenesis, restenosis, atherosclerosis, cancer, tumour
 CC metastasis, fibrosis, haemangioma, lymphoma, leukaemia, psoriasis,
 CC arthritis, diabetes, amyotrophic lateral sclerosis, graft rejection,
 CC retinopathy, macular degeneration or retinal tearing or autoimmune
 CC disease, e.g. Lupus, Crohn's disease or multiple sclerosis. The present
 CC sequence is a Parathyroid hormone related peptide N-terminus, useful as
 CC an antiangiogenic peptide in the method of the invention.

XX Sequence 10 AA;

Query Match 100.0%; Score 46; DB 8; Length 10;

Best Local Similarity 100.0%; Pred. NO. 0.075;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9

Db 1 AVSEHQQLLH 9

RESULT 5

AAW45785

ID AAW45785 standard; peptide; 12 AA.

XX AC AAW45785;

XX DT 24-JUN-1998 (first entry)

XX DE Parathyroid hormone related peptide analogue fragment.

XX Parathyroid hormone; PTH; osteoporosis; peptide synthesis; analogue;
 KW parathyroid hormone-related hormone; PTH-rp; alpha-helix; amphipathic.

XX OS Mammalia.

XX OS Synthetic.

XX PN EP822200-A1.

XX PD 04-FEB-1998.

XX PF 23-JUL-1997; 97EP-00112595.

XX PR 30-JUL-1996; 96US-0023322P.

XX PA (HOFF) HOFFMANN LA ROCHE & CO AG F.

XX PI Arzeno HB;

XX DR WPI; 1998-102869/10.

XX Chemical synthesis of parathyroid hormone analogues - by solution or
 PT solid-phase methods, useful for treating osteoporosis.

XX Claim 10; Page 67; 69pp; English.

This sequence represents a specifically claimed peptide fragment. The invention relates to a process for synthesising a polypeptide analogue of parathyroid hormone (PTH) or PTH-related peptide (PTH-rp) in which amino acids 22-31 are: Glu-Leu-Leu-Glu-Lys-Leu-Leu-Xaa1-Lys-Leu (I); Glu-Leu-Leu-Glu-Arg-Leu-Xaa2-Arg-Leu (II); Ala-Leu-Ala-Glu-Ala-Leu-Ala-Glu-Ala-Leu (III); Ser-Leu-Leu-Ser-Leu-Leu-Ser-Leu (IV); Ala-Phe-Tyr-Asp-Lys-Val-Ala-Glu-Lys-Leu (V); Xaa3-Xaa4-Leu-Xaa3-Xaa5-Leu-Xaa6-Xaa7-Xaa8-Xaa6 (VI); or Xaa3-Xaa4-Leu-Xaa3-Arg-Leu-Leu-Xaa9-Arg-Leu (VII), Xaa1 = Glu or Arg; Xaa2 = Glu, Lys or 'lysine' (OCCH2P5GX)'; Xaa3 = Glu, Glu(OMe), His or Phe; Xaa4 = Leu or Phe; Xaa5 = Lys or His; Xaa6 = Leu or Ile; Xaa7 = Ala, Arg or Glu; Xaa8 = Lys or Glu; and Xaa9 = Glu, Lys or 'Lys(COCH2PEGX)'. The process comprises independently synthesising precursor peptide fragments of the polypeptide by solution or solid-phase techniques, coupling (condensing) the fragments together, and removing any protecting groups. The peptides can be used for treating osteoporosis

CC Sequence 12 AA;

Query Match 100.0%; Score 46; DB 2; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.091;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
| | | | |
Db 1 AVSEHQLLH 9

RESULT 6
AAB01860
ID AAB01860 standard; peptide; 14 AA.

XX AAB01860;

XX 11-SEP-2000 (first entry)

XX Human parathyroid hormone-related peptide, PTHrP(1-14).

XX PTH-related peptide; PTHrP; parathyroid hormone peptide; PTH;
XX calcium homeostasis; PTH-1 receptor; PTH-2; vitamin D synthesis;
XX bone synthesis; osteoporosis; non-parenteral delivery.

XX Homo sapiens.

XX WO200023594-A1.

XX 27-APR-2000.

XX 20-OCT-1999; 99WO-US024481.

XX 22-OCT-1998; 98US-0105530P.

XX (GARD// GARDELLA T J.

XX (KRON// KRONENBERG H M.

XX (POTT// POTTS J T.

XX (JUEP// JUEPPNER H.

XX Gardella TJ, Kronenberg HM, Potts JT, Jueppner H;

XX WPI; 2000-339693/29.

XX Parathyroid hormone (PTH) peptides, PTH related peptides and the nucleic acids that encode them, useful for treating osteoporosis.

XX Claim 8; Page 48; 73pp; English.

XX The invention relates to a novel parathyroid hormone (PTH) peptide (AAB01859) and parathyroid hormone-related peptide (PTH-rP; AAB01860), and biologically active derivatives thereof (AAB01857-B01858, AAB01861-B01869). The peptides of the invention are at least 85% identical to the generic peptide of the formula: X1-Val-Ser-Glu-X2-Gln-Leu-X3-His-X4-X5-Gly-Lys-X6 (AAB01857) where: X1 is Ser or Ala; X2 is Ile or Lys; X3 is Met, Leu or Nle; X4 is Asn or Asp; X5 is Leu or Lys; X6 is His or Ser;

CC provided that the peptide is not PTHrP(1-14). The peptides of the invention also encompass fragments of peptides of the invention consisting of amino acids 1-9, 1-10, 1-11, 1-12 and 1-13, and N- and C-terminal derivatives. PTH is a major regulator of calcium homeostasis, and is necessary for the normal function of the gastrointestinal, skeletal, neurological system, neuromuscular and cardiovascular systems. It binds to both PTH-1 receptors on osteoblasts and renal tubular cells, and to the recently identified PTH-2 receptor. PTH has a potent anabolic effect on the skeleton, and mediates calcium reabsorption, enhances phosphate clearance and vitamin D synthesis in the kidney. A homologous calls of protein hormones, the PTH-related proteins (PTHrP) mimic some of the renal and skeletal actions of PTH, and also bind to the PTH-1 receptor. They do not bind to the PTH-2 receptor. The peptides of the invention are either agonists of PTH-1 and PTH-2 receptors (AAB01858, AAB01861-B01866) or are PTH-1/PTH-2 receptor antagonists (AAB01867-B01869). PTH-1/PTH-2 receptor agonists are useful for the treatment of conditions characterised by a decrease in bone mass, such as osteoporosis. PTH-1/PTH-2 receptor antagonists are useful for treating medical disorders that arise from excessive or altered action of the PTH-1/PTH-2 receptor. Detectably labelled peptides of the invention are also useful in the determination of rates of bone formation, bone resorption and/or bone remodelling in a patient. The peptides of the invention are "minimised" versions of PTH or PTHrP which are inexpensive to prepare by conventional synthetic chemistry, and can be delivered to a patient via non-parenteral routes. The present sequence represents a human PTHrP peptide, PTHrP(1-14)

XX Sequence 14 AA;

Query Match 100.0%; Score 46; DB 3; Length 14;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9

| | | | |
Db 1 AVSEHQLLH 9

RESULT 7

AAB96895

ID AAB96895 standard; peptide; 14 AA.

XX AAB96895;

XX 13-JUL-2001 (first entry)

XX Human parathyroid hormone related protein primary amino acid sequence.

XX Rat; human; parathyroid hormone derivative; calcium homeostasis;

XX hypercalcaemia; anaemia; bone disease; renal impairment; ulcer; myopathy;

XX neuropathy; hyperparathyroidism; osteoporosis; fracture;

XX cartilage disorder.

XX Homo sapiens.

XX WO200123427-A1.

XX 05-APR-2001.

XX 25-FEB-2000; 2000WO-US004716.

XX 29-SEP-1999; 99US-0156927P.

XX (GEHO) GEN HOSPITAL CORP.

XX Gardella TJ, Kronenberg HM, Potts JT, Jueppner H;

XX WPI; 2001-343161/36.

XX Novel amino acid encoding polypeptides useful in the treatment of osteoporosis.

XX Disclosure; Page 34; 100pp; English.

XX The present invention provides a number of parathyroid hormone
 CC derivatives based on the rat and human hormone sequences. These peptides
 CC can be used in the treatment of human skeletal conditions, including
 CC osteoporosis, fractures and cartilage disorders, disruption of calcium
 CC homeostasis, which may cause severe bone disease, anaemia, renal
 CC impairment, ulcers, myopathy and neuropathy, hypercalcaemia and
 CC hyperparathyroidism. The present peptide was used in the exemplification
 CC of the invention
 XX
 SQ Sequence 14 AA;

Query Match 100.0%; Score 46; DB 4; Length 14;
 Best Local Similarity 100.0%; Pred. No. 0.11;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
 |||||
 Db 1 AVSEHQQLLH 9

RESULT 8
 AAB84774
 ID AAB84774 standard; peptide; 14 AA.

XX
 AC AAB84774;

DT 25-JUL-2001 (first entry)

XX Native parathyroid hormone-related protein peptide fragment.

DE Osteopathic; calcium homeostasis regulator; parathyroid hormone; PTH;
 KW bone mass; osteoporosis.

XX Unidentified.

XX WO200123521-A2.

XX 05-APR-2001.

XX 29-SEP-2000; 2000WO-US026818.

XX 29-SEP-1999; 99US-0156927P.

XX 25-FEB-2000; 2000US-0185060P.

XX (GEHO) GEN HOSPITAL CORP.

XX Gardella TJ, Kronenberg HM, Potts JT, Juppner H;

XX WPT; 2001-374252/39.

XX New Parathyroid hormone (PTH) derivatives useful for treating conditions
 CC characterized by decreases in bone mass.

XX Disclosure; Page 34; 97pp; English.

XX The present invention relates to parathyroid hormone (PTH) polypeptide
 CC derivatives, and the present sequence is one such derivative. PTH is a
 CC major regulator of calcium homeostasis. The PTH polypeptide derivatives
 CC are useful for treating conditions characterised by decreases in bone
 CC mass, such as old age osteoporosis and post-menopausal osteoporosis. The
 CC polypeptides are also useful for determining rates of bone reformation,
 CC bone resorption and/or bone remodeling, by administering the polypeptide
 CC to the patient and determining the uptake of the peptide into the bone,
 CC and effective bone mass-increasing amount to the peptide is administered
 CC by providing to the patient DNA encoding the peptide and expressing the
 CC peptide in vivo. The levels of cAMP and inositol phosphate can also be
 CC increased in a mammalian cell having PTH-1 receptors, by contacting the
 CC cell with a sufficient amount of the polypeptide

XX Sequence 14 AA;

Query Match 100.0%; Score 46; DB 4; Length 14;

Best Local Similarity 100.0%; Pred. No. 0.11;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
 |||||
 Db 1 AVSEHQQLLH 9

RESULT 9
 AAP82548
 ID AAP82548 standard; protein; 16 AA.

XX AAP82548;

XX 25-MAR-2003 (revised)

DT 03-OCT-2002 (revised)

DT 13-DEC-1990 (first entry)

XX (Aen10) PTHrP(1-16).

XX Parathyroid hormone; cancer; chronic renal failure; bone disease.

XX Synthetic.

XX WO8800596-A.

XX 28-JAN-1988.

XX 04-JUN-1987; 87WO-AU000165.

XX 18-JUL-1986; 86AU-00007027.

PR 06-AUG-1986; 87AU-00075145.

PR 13-FEB-1987; 87AU-00000349.

XX (UYME) UNIV MELBOURNE.

XX (MART/) MARTIN T J.

XX Martin TJ, Moseley JM, Kemp BE, Wettenhall REH;

XX WPI; 1988-036432/05.

XX Purified parathyroid hormone related hormone - useful for preparing
 CC antibodies for detection of cancer, chronic renal failure and bone
 CC diseases in which parathyroid hormone functions.

XX Claim 7; Page 34; 6pp; English.

XX This purified parathyroid hormone related hormone (PTHrP) modif-ied
 CC subunit is useful for preparing antibodies for detection of PTHrP
 CC activity and diagnosis of cancer, chronic renal failure and bone diseases
 CC in which the parathyroid hormone functions. See also AAP82544, AAP82547
 CC and AAP82549. (Updated on 03-OCT-2002 to add missing OS field.) (Updated
 CC on 25-MAR-2003 to correct PA field.)

XX Sequence 16 AA;

Query Match 100.0%; Score 46; DB 1; Length 16;
 Best Local Similarity 100.0%; Pred. No. 0.12;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
 |||||
 Db 1 AVSEHQQLLH 9

RESULT 10
 AAP82549
 ID AAP82549 standard; protein; 17 AA.

XX AAP82549;

XX 25-MAR-2003 (revised)

DT 03-OCT-2002 (revised)


```

CC PCR using the flanking primers PTHPCR 1 and PTHPCR2 (AAQ81471 and
CC AAQ81472). (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ Sequence 21 AA;

Query Match      100.0%; Score 46; DB 2; Length 21;
Best Local Similarity 100.0%; Pred. No. 0.19;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQQLLH 9
Db 2 AVSEHQQLLH 10

RESULT 13
AAP80301
ID AAP80301 standard; protein; 24 AA.
XX
XX AAP80301;
XX
DT 25-MAR-2003 (revised)
DT 31-OCT-2002 (revised)
DT 03-OCT-1990 (first entry)
XX
XX Sequence encoded by probe brf. 1.
XX
XX Probe brf. 1; adenylate cyclase stimulating factor; bone resorption;
XX parathyroid hormone receptor; humoral hypercalcaemia of malignancy.
XX
XX Homo sapiens.
XX
XX WO8809376-A.
XX
XX 01-DEC-1988.
XX
XX 19-MAY-1988; 88WO-US001652.
XX
XX 20-MAY-1987; 87US-00052637.
XX
XX (GETH ) GENENTECH INC.
XX (UYME ) UNIV MELBOURNE.
XX
XX Martin TJ, Suya LJ, Wood WL;
XX
XX WPI; 1988-353951/49.
XX N-PSDB; AAP80301.
XX
XX Recombinant adenylate Cyclase Stimulating factor - used to produce
XX antibodies for detection and treatment of humoral hypercalcaemia of
XX malignancy.
XX
XX Homo sapiens.
XX
XX WO8809376-A.
XX
XX 01-DEC-1988.
XX
XX 19-MAY-1988; 88WO-US001652.
XX
XX 20-MAY-1987; 87US-00052637.
XX
XX (GETH ) GENENTECH INC.
XX (UYME ) UNIV MELBOURNE.
XX
XX Martin TJ, Suya LJ, Wood WL;
XX
XX WPI; 1988-353951/49.
XX N-PSDB; AAP80301.
XX
XX Recombinant adenylate Cyclase Stimulating factor - used to produce
XX antibodies for detection and treatment of humoral hypercalcaemia of
XX malignancy.
XX
XX Disclosure; Page ?; 48pp; English.
XX
XX (Updated on 31-OCT-2002 to add missing OS field.) (Updated on 25-MAR-2003
XX to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
XX Sequence 24 AA;

Query Match      100.0%; Score 46; DB 1; Length 24;
Best Local Similarity 100.0%; Pred. No. 0.19;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQQLLH 9
Db 1 AVSEHQQLLH 9

RESULT 14
AAP81358
ID AAP81358 standard; protein; 24 AA.
XX
XX AAP81358;
XX

```

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DT 25-MAR-2003 (revised)
DT 31-OCT-2002 (revised)
DT 03-OCT-1990 (first entry)
XX
XX Sequence encoded by probe brf. 2.
XX
XX Probe brf. 2; adenylate cyclase stimulating factor; bone resorption;
XX parathyroid hormone receptor; humoral hypercalcaemia of malignancy.
XX
XX Homo sapiens.
XX
XX WO8809376-A.
XX
XX 01-DEC-1988.
XX
XX 19-MAY-1988; 88WO-US001652.
XX
XX 20-MAY-1987; 87US-00052637.
XX
XX (GETH ) GENENTECH INC.
XX (UYME ) UNIV MELBOURNE.
XX
XX Martin TJ, Suya LJ, Wood WL;
XX
XX WPI; 1988-353951/49.
XX N-PSDB; AAP80302.
XX
XX Recombinant adenylate Cyclase Stimulating factor - used to produce
XX antibodies for detection and treatment of humoral hypercalcaemia of
XX malignancy.
XX
XX Disclosure; Page ?; 48pp; English.
XX
XX The peptide is encoded by probe brf. 1. It comprises a portion of the
XX adenylate cyclase stimulating factor sequence. (Updated on 31-OCT-2002 to
XX add missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
XX (Updated on 25-MAR-2003 to correct PI field.)
XX
XX Sequence 24 AA;

Query Match      100.0%; Score 46; DB 1; Length 24;
Best Local Similarity 100.0%; Pred. No. 0.19;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQQLLH 9
Db 1 AVSEHQQLLH 9

RESULT 15
AAU73164
ID AAU73164 standard; peptide; 29 AA.
XX
XX AAU73164;
XX
XX 12-MAR-2002 (first entry)
XX
XX Parathyroid hormone PTH/PTHrP modulating domain #146.
XX
XX Human; parathyroid hormone; PTH; parathyroid hormone-related protein;
XX PTHrP; bone resorption inhibitor; osteoprotegerin; OPG; OPG-L antibody;
XX calcitonin; bisphosphonate; oestrogen; oestrogen receptor; tibolone;
XX osteopenia; hyperthyroidism; hypercalcaemia; tumour metastasis; bone;
XX breast cancer; prostate cancer; cachexia; anorexia; osteoporosis;
XX Paget's disease; osteomyelitis; osteonecrosis; bone cell death;
XX Gaucher's disease; sickle cell anaemia; systemic lupus erythematosus;
XX rheumatoid arthritis; periodontal disease; alopecia; fracture repair;
XX immunoglobulin G; IgG.
XX
XX Homo sapiens.
XX
XX WO200181415-A2.
XX

```

PD 01-NOV-2001.
XX
XX PF 27-APR-2001; 2001WO-US013528.
XX
XX PR 27-APR-2000; 2000US-0200053P.
XX PR 28-JUN-2000; 2000US-0214860P.
XX PR 06-FEB-2001; 2001US-0266673P.
XX PR 26-APR-2001; 2001US-00843221.
XX
XX PA (AMGE-) AMGEN INC.
XX
XX PI Kostenuik P, Liu C, Lacey DL;
XX
XX DR WPI; 2002-066435/09.
XX
XX PT Composition, useful for treating osteopenia, comprises parathyroid
XX hormone and parathyroid hormone-related protein receptor modulators.
XX
XX PS Disclosure; Page 32; 107pp; English.
XX
XX CC The invention relates to a composition (I) comprising modulators of
XX parathyroid hormone (PTH) and parathyroid hormone-related protein (PTHrP)
XX which comprise a PTH/PTHrP modulating domain and a vehicle. (I)
XX comprising PTH agonist optionally with a bone resorption inhibitor, such
XX as osteoprotegerin (OPG), OPG-L antibody, calcitonin, bisphosphonates,
XX oestrogens, oestrogen receptor modulators and tibolone is useful for
XX treating osteopenia. (I) is useful for therapeutic and prophylactic
XX purposes. Antagonists of PTH receptor are useful in treating primary and
XX secondary hyperthyroidism, hypercalcaemia, tumour metastases,
XX particularly breast and prostate cancer, cachexia and anorexia,
XX osteopenia, including various forms of osteoporosis, Paget's disease of
XX bone, osteomyelitis, osteonecrosis or bone cell death, associated with
XX traumatic injury or nontraumatic necrosis associated with Gaucher's
XX disease, sickle cell anaemia, systemic lupus erythematosus, rheumatoid
XX arthritis, periodontal disease and alopecia. PTH receptor agonists are
XX useful as therapeutic agents in conditions including fracture repair
XX (including healing of non-union fractures), osteopenia, including various
XX forms of osteoporosis. AAU73018-AAU73181 represent parathyroid hormone
XX and parathyroid hormone related protein (PTH/PTHrP) modulators and
XX related amino acid sequences of the invention
XX
SQ Sequence 29 AA;

Query Match 100.0%; Score 46; DB 5; Length 29;
Best Local Similarity 100.0%; Pred. No. 0.23;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
| | | | | | | | |
Db 1 AVSEHQLLH 9

Search completed: December 2, 2005, 23:27:49
Job time : 26.8764 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:04:13 ; Search time 3.94382 Seconds
(without alignments)
219.572 Million cell updates/sec

Title: US-10-691-125-2
Perfect score: 46
Sequence: 1 AVSEHQJLLH 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues
Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:*
1: pir1.*
2: pir2.*
3: pir3.*
4: pir4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	46	100.0	175	JN0103	parathyroid hormon
2	46	100.0	176	S10202	parathyroid hormon
3	46	100.0	177	A30012	parathyroid hormon
4	46	100.0	177	PTHU2L	parathyroid hormon
5	46	100.0	177	JC4201	parathyroid hormon
6	46	100.0	209	PTHU3L	parathyroid hormon
7	36	78.3	215	AGO290	ribonuclease T (EC
8	35	76.1	220	H6257	hypothetical prote
9	34	73.9	237	G83327	hypothetical prote
10	34	73.9	271	A48826	low chlorolytic ha
11	34	73.9	607	I37560	protein-tyrosine k
12	34	73.9	686	A34612	zinc finger protei
13	34	73.9	746	HHUMA	neprin A (EC 3.4.2
14	34	73.9	748	S24134	endopeptidase 2 (E
15	34	73.9	3005	S33642	homeotic protein z
16	33	71.7	115	A50591	parathyroid hormon
17	33	71.7	386	T12527	hypothetical prote
18	33	71.7	484	AB3202	3-hydroxyacyl-CoA
19	33	71.7	528	S4944	regulatory protein
20	33	71.7	590	A40559	probable ABC trans
21	33	71.7	590	H64774	ABC-type transport
22	33	71.7	590	F90691	ATP-binding compon
23	33	71.7	590	B85542	ATP-binding compon
24	33	71.7	769	P1BPF6	p1 protein - phase
25	33	71.7	1143	I84547	hypothetical mdl f
26	32	69.6	105	I51851	parathyroid hormon
27	32	69.6	157	A06699	probable Type III
28	32	69.6	215	AD0695	ribonuclease T [im
29	32	69.6	215	A45065	ribonuclease T (EC

RESULT 1

JN0103

Parathyroid hormone-related peptide precursor - mouse

C:Species: Mus musculus (house mouse)

C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004

C:Accession: JN0103

R:Mangin, M.; Ikeda, K.; Broadus, A.E.

Gene 95, 195-202, 1990

A:Title: Structure of the mouse gene encoding parathyroid hormone-related peptide.

A:Reference number: JN0103; MUID:91065532; PMID:2249778

A:Accession: JN0103

A:Molecule type: DNA

A:Residues: 1-175 <MAN>

A:Cross-references: UNIPROT:P22858; UNIPARC:UPI00000299AE; GB:M60057; GB:M34098; NID:920

C:Comment: The normal role of the parathyroid hormone-related peptide is unknown.

C:Genetics:

A:Introns: 34/2; 173/2

C:Superfamily: parathyroid hormone-related protein; parathyroid hormone homology

F:1-24/Domain: signal sequence #status predicted <SIG>

F:25-36/Domain: propeptide #status predicted <PRO>

F:35-69/Domain: parathyroid hormone homology <PTH>

F:37-175/Product: parathyroid hormone-related peptide #status predicted <MAT>

Query Match 100.0%; Score 46; DB 1; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.043;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQJLLH 9
|||
Db 37 AVSEHQJLLH 45

RESULT 2

S10202

parathyroid hormone-related protein precursor - chicken

C:Species: Gallus gallus (chicken)

C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004

C:Accession: S10202

R:Thiede, M.A.; Rutledge, S.J.

Nucleic Acids Res. 18, 3062, 1990

A:Title: Nucleotide sequence of a parathyroid hormone-related peptide expressed by the j

A:Reference number: S10202; MUID:90272428; PMID:2349111

A:Accession: S10202

A:Molecule type: mRNA

A:Residues: 1-176 <THI>

A:Cross-references: UNIPROT:P17251; UNIPARC:UPI0000132902; EMBL:X52131; NID:962973; PTDN

C:Superfamily: parathyroid hormone-related protein; parathyroid hormone homology

C:Keywords: Glycoprotein; hormone

F:1-25/Domain: signal sequence #status predicted <SIG>

F:26-37/Domain: propeptide #status predicted <PRO>

F:36-70/Domain: parathyroid hormone homology <PTH>

F:38-176/Product: parathyroid hormone-related protein #status predicted <MAT>

F;110,157/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 100.0%; Score 46; DB 1; Length 176;
 Best Local Similarity 100.0%; Pred. No. 0.043;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9

|||||
 Db 38 AVSEHQLLH 46

RESULT 3

A30012

Parathyroid hormone-like protein precursor - rat

C/Species: Rattus norvegicus (Norway rat)

C/Date: 10-Sep-1999 #sequence revision 10-Sep-1999 #text_change 09-Jul-2004

C/Accession: A34723; A34944; A30012; A43416

R;Karaplis, A.C.; Yasuda, T.; Hendy, G.N.; Goltzman, D.; Banville, D.

Mol. Endocrinol. 4, 441-446, 1990

A;Title: Gene-encoding parathyroid hormone-like peptide: nucleotide sequence of the rat

A;Reference number: A34723; MUID:90258937; PMID:2342478

A;Accession: A34723

A;Molecule type: DNA

A;Residues: 1-177 <KAR>

A;Cross-references: UNIPROT:P13085; UNIPARC:UPI0000132905; GB:M34112; NID:g206229; PIDN:

A;Note: the authors translated the codon TAC for residue 114 as Thr

R;Yasuda, T.; Banville, D.; Rabbani, S.A.; Hendy, G.N.; Goltzman, D.

Mol. Endocrinol. 3, 518-525, 1989

A;Title: Rat parathyroid hormone-like peptide: comparison with the human homologue and e

A;Reference number: A34944; MUID:89313794; PMID:2747658

A;Accession: A34944

A;Molecule type: mRNA

A;Residues: 1-177 <YAS>

A;Cross-references: UNIPARC:UPI0000132905; GB:M31603; NID:g206486; PIDN:AAA41980.1; PID:

R;Thiede, M.A.; Rodan, G.A.

Science 242, 278-280, 1988

A;Title: Expression of a calcium-mobilizing parathyroid hormone-like peptide in lactatin

A;Reference number: A30012; MUID:89019361; PMID:3175653

A;Accession: A30012

A;Molecule type: mRNA

A;Residues: 1-177 <THI>

A;Cross-references: UNIPARC:UPI0000132905; EMBL:M21967; NID:g206488; PIDN:AAA41981.1; PI

R;Soifer, N.E.; Dee, K.E.; Insogna, K.L.; Burtis, W.J.; Matovicik, L.M.; Wu, T.L.; Milstc

J. Biol. Chem. 267, 18236-18243, 1992

A;Title: Parathyroid hormone-related protein. Evidence for secretion of a novel mid-regi

A;Reference number: A43416; MUID:92388199; PMID:1517251

A;Accession: A43416

A;Molecule type: protein

A;Residues: 'X', 75-84, 'S', 86-90, 'X', 92-93, 'X', 95-101, 'X', 103-105, 'X', 107 <SOI>

A;Cross-references: UNIPARC:UPI00000ESC38

A;Experimental source: RIN-141 cells

A;Note: sequence extracted from NCBI backbone (NCBIP:112971)

C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology

F;1-36/Domain: signal sequence #status predicted <SIG>

F;35-69/Domain: parathyroid hormone homology <PTH>

F;37-177/Product: parathyroid hormone-like protein #status predicted <WAT>

F;73-74/Cleavage site: Arg-Ala (unidentified proteinase) #status experimental

Query Match 100.0%; Score 46; DB 1; Length 177;

Best Local Similarity 100.0%; Pred. No. 0.043;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9

|||||
 Db 37 AVSEHQLLH 45

RESULT 4

PTH2UL

Parathyroid hormone-related protein precursor, splice form 2 - human

N;Alternate names: parathyroid hormone-like protein

N;Contains: parathyroid hormone-related protein, splice form 1; parathyroid hormone-rela

C;Species: Homo sapiens (man)

C;Date: 31-Mar-1993 #sequence revision 31-Mar-1993 #text_change 09-Jul-2004
 C;Accession: A33360; B33360; A28120; A94295; B94295; A36166; A28034; A36512; JSO
 R;Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.

J. Biol. Chem. 264, 7720-7725, 1989

A;Title: Characterization of the human parathyroid hormone-like peptide gene. Functional

A;Reference number: A33360; MUID:89214227; PMID:2708388

A;Accession: A33360

A;Molecule type: DNA

A;Residues: 1-175 <YAS>

A;Cross-references: UNIPROT:P12272; UNIPARC:UPI000002B1CC; GB:M24349; GB:J04710; NID:g19

A;Accession: B33360

A;Molecule type: DNA

A;Residues: 176-177 <YAS2>

A;Cross-references: UNIPARC:UPI00001734EA; GB:J04710

R;Mangin, M.; Webb, A.C.; Dreyer, B.E.; Possilico, J.T.; Ikeda, K.; Weir, E.C.; Stewart,

Proc. Natl. Acad. Sci. U.S.A. 85, 597-601, 1988

A;Title: Identification of a cDNA encoding a parathyroid hormone-like peptide from a hum

A;Reference number: A28120; MUID:88124888; PMID:2829195

A;Accession: A28120

A;Molecule type: mRNA

A;Residues: 1-177 <MAN>

A;Cross-references: UNIPARC:UPI0000047E25; EMBL:J03580

R;Suva, L.J.; Winslow, G.A.; Wettenhall, R.E.H.; Hammonds, R.G.; Moseley, J.M.; Diefenba

Science 237, 893-896, 1987

A;Title: A parathyroid hormone-related protein implicated in malignant hypercalcemia; c

A;Reference number: A94295; MUID:87292119; PMID:3616618

A;Accession: A94295

A;Molecule type: mRNA

A;Residues: 1-177 <SU1>

A;Cross-references: UNIPARC:UPI0000047E25; GB:M17183; NID:g190725; PIDN:AAA60221.1; PID:

A;Accession: B94295

A;Molecule type: protein

A;Residues: 37-70, 'X', 72-84, 'X', 86, 103-115 <SU2>

A;Cross-references: UNIPARC:UPI00001734EB; UNIPARC:UPI00001734EC

R;Thiede, M.A.; Strewler, G.J.; Nissenson, R.A.; Rosenblatt, M.; Rodan, G.A.

Proc. Natl. Acad. Sci. U.S.A. 85, 4605-4609, 1988

A;Title: Human renal carcinoma expresses two messages encoding a parathyroid hormone-lik

A;Reference number: A36166; MUID:88262996; PMID:3290897

A;Accession: A36166

A;Molecule type: mRNA

A;Residues: 1-175 <THI>

A;Cross-references: UNIPARC:UPI000002B1CC; GB:J03802; NID:g190717; PIDN:AAA60218.1; PID:

R;Suva, L.J.; Mather, K.A.; Gillespie, M.T.; Webb, G.C.; Ng, K.W.; Winslow, G.A.; Wood, A.

Gene 77, 95-105, 1989

A;Title: Structure of the 5' flanking region of the gene encoding human parathyroid-horm

A;Reference number: A91606; MUID:89306685; PMID:2744490

A;Accession: A91606

A;Molecule type: DNA

A;Residues: 1-34 <SU3>

A;Cross-references: UNIPARC:UPI000016AF38; EMBL:X14304; NID:g35776; PIDN:CNA32480.1; PID

R;Moseley, J.M.; Kubota, M.; Diefenbach-Jagger, H.; Wettenhall, R.E.H.; Kemp, B.E.; Suva,

Proc. Natl. Acad. Sci. U.S.A. 84, 5048-5052, 1987

A;Title: Parathyroid hormone-related protein purified from a human lung cancer cell line

A;Reference number: A28034; MUID:87260926; PMID:2885845

A;Accession: A28034

A;Molecule type: protein

A;Residues: 37-52 <MOS>

A;Cross-references: UNIPARC:UPI00001734ED

C;Comment: This hormone stimulates an increase of cyclic AMP levels in osteoblasts and c

ay a role in fetal calcium metabolism.

C;Genetics:

A;Gene: GDB:PTH1H

A;Cross-references: GDB:120323; OMIM:168470

A;Map position: 12p12.1-12p11.2

A;Introns: 34/2

C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology

C;Keywords: alternative splicing; hormone; humoral hypercalcemia

F;1-24/Domain: signal sequence #status predicted <SIG>

F;25-36/Domain: propeptide #status predicted <PRO>

F;35-69/Domain: parathyroid hormone homology <PTH>

F;37-177/Product: parathyroid hormone-related peptide, splice form 1 #status predicted <

F;37-175/Product: parathyroid hormone-related peptide, splice form 1 #status predicted <

Query Match 100.0%; Score 46; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.043;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLH 9
||| |||||
Db 37 AVSEHQLLH 45

RESULT 5

JC4201
parathyroid hormone-related protein precursor - dog
C:Species: Canis lupus familiaris (dog)
C:Date: 10-Sep-1995 #sequence_revision 27-Oct-1995 #text_change 09-Jul-2004
C:Accession: JC4201
R:Rosol, T.J.; Steinmeyer, C.L.; McCauley, L.K.; Groene, A.; DeWille, J.W.; Capen, C.C.
Gene 160, 241-243, 1995
A:Title: Sequences of the cDNAs encoding canine parathyroid hormone-related protein and
A:Reference number: JC4201; MUID:95369696; PMID:7642102
A:Accession: JC4201
A:Molecule type: mRNA
A:Residues: 1-177 <ROS>
A:Cross-references: UNIPROT:P52211; UNIPARC:UPI0000132901; GB:U15593; NID:9558476; PIDN:
C:Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
C:Keywords: hormone
F:1-36/Domain: signal sequence #status predicted <SIG>
F:35-69/Domain: parathyroid hormone homology <PTH>
F:37-177/Product: parathyroid hormone-related protein #status predicted <MAT>

Query Match 100.0%; Score 46; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.043;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLH 9
||| |||||
Db 37 AVSEHQLLH 45

RESULT 6

PTHU1
parathyroid hormone-related protein precursor, splice form 3 - human
N:Alternate names: parathyroid hormone-like protein
C:Species: Homo sapiens (man)
C:Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 09-Jul-2004
C:Accession: C33360; A32756
R:Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.
J. Biol. Chem. 264, 7720-7725, 1989
A:Title: Characterization of the human parathyroid hormone-like peptide gene. Functional
A:Reference number: A33360; MUID:89214227; PMID:2708388
A:Accession: C33360
A:Molecule type: DNA
A:Residues: 1-209 <YAS>
A:Cross-references: UNIPROT:P12272; UNIPROT:Q15251; UNIPARC:UPI000002B1CD; GB:M24350; GB
R:Marglin, M.; Ikeda, K.; Dreyer, B.E.; Broadus, A.E.
Proc. Natl. Acad. Sci. U.S.A. 86, 2408-2412, 1989
A:Title: Isolation and characterization of the human parathyroid hormone-like peptide ge
A:Reference number: A32756; MUID:89184636; PMID:2928340
A:Accession: A32756
A:Molecule type: DNA
A:Residues: 176-209 <MAN>
A:Cross-references: UNIPARC:UPI0000035191; GB:M34071; NID:G190715; PIDN:AAA60217.1; PID:
C:Comment: This hormone causes humoral hypercalcemia of malignancy when secreted by cer
C:Genetics:
A:Gene: GDB:PTHU1
A:Cross-references: GDB:120323; OMIM:168470
A:Map position: 12p12.1-12p11.2
A:Introns: 34/2; 175/2
C:Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
C:Keywords: alternative splicing; hormone; humoral hypercalcemia
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-36/Domain: propeptide #status predicted <PRO>
F:35-69/Domain: parathyroid hormone homology <PTH>
F:37-209/Product: parathyroid hormone-related protein, splice form 3 #status predicted <

Query Match 100.0%; Score 46; DB 1; Length 209;
Best Local Similarity 100.0%; Pred. No. 0.052;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLH 9
||| |||||
Db 37 AVSEHQLLH 45

RESULT 7

AG0290
ribonuclease T (EC 3.1.13.3) [imported] - Yersinia pestis (strain CO92)
C:Species: Yersinia pestis
C:Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Jul-2004
C:Accession: AG0290
R:Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B.
deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.;
Il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrall,
Nature 413, 523-527, 2001
A:Title: Genome sequence of Yersinia pestis, the causative agent of plague.
A:Reference number: AB0001; MUID:21470413; PMID:11586360
A:Accession: AG0290
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-215 <KUR>
A:Cross-references: UNIPROT:Q8ZE08; UNIPARC:UPI0000134501; GB:AL590842; PIDN:CAC91187.1;
C:Genetics:
A:Gene: int

Query Match 78.3%; Score 36; DB 2; Length 215;
Best Local Similarity 77.8%; Pred. No. 6.2;
Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 AVSEHQLLH 9
||| |||||
Db 89 AVSEHDALH 97

RESULT 8

H69257
hypothetical protein AF0064 - Archaeoglobus fulgidus
C:Species: Archaeoglobus fulgidus
C:Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C:Accession: H69257
R:Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Dodson
.; Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.F.
Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L.
Nature 390, 364-370, 1997
A:Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Attiach, P.; Kaine, B.P.; Sykes, S.
Smith, H.O.; Woese, C.R.; Venter, J.C.
A:Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archaeo
A:Reference number: A69250; MUID:98049343; PMID:9389475
A:Accession: H69257
A:Status: preliminary; nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-220 <KLE>
A:Cross-references: UNIPROT:O30172; UNIPARC:UPI0000057259; GB:AE001102; GB:AE000782; NID

Query Match 76.1%; Score 35; DB 2; Length 220;
Best Local Similarity 75.0%; Pred. No. 10;
Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 2 VSEHQLLH 9
||| |||||
Db 198 VSKHELLH 205

RESULT 9

GB3327
hypothetical protein PA2544 [imported] - Pseudomonas aeruginosa (strain PAO1)
C:Species: Pseudomonas aeruginosa
C:Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004

C;Accession: G83327
 R;Stover, C.K.; Pham, X.O.; Erwin, A.L.; Mizoquchi, S.D.; Warren, P.; Hickey, M.J.; Berman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, J.; Lory, S.; Olson, M.V.
 Nature 406, 959-964, 2000
 A;Title: Complete genome sequence of *Pseudomonas aeruginosa* PA01, an opportunistic pathogen
 A;Reference number: A82950; MUID:20437337; PMID:10984043
 A;Accession: G83327
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-237 <STO>
 A;Cross-references: UNIPROT:Q910U0; UNIPARC:UPI00000C572D; GB:AE004682; GB:AE004091; NID:10984043
 A;Experimental source: strain PA01
 C;Genetics:
 A;Gene: PA2544

Query Match 73.9%; Score 34; DB 2; Length 237;
 Best Local Similarity 77.8%; Pred. No. 18;
 Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
 |||||
 Db 221 AVREHVLH 229

RESULT 10

A48826
 low choriolytic hatching proteinase (SC 3.4.24.-) precursor - Japanese medaka
 C;Species: *Oryzias latipes* (Japanese medaka)
 C;Date: 01-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
 C;Accession: A48826
 R;Yasumae, S.; Yamada, K.; Akasaka, K.; Mitsuunaga, K.; Iuchi, I.; Shinada, H.; Yamagami, S.
 Dev. Biol. 153, 250-258, 1992
 A;Title: Isolation of cDNAs for LCE and HCE, two constituent proteases of the hatching enzyme
 A;Reference number: A48826; MUID:93012471; PMID:1397682
 A;Accession: A48826
 A;Molecule type: mRNA; protein
 A;Residues: 1-271 <YAS>
 A;Cross-references: UNIPROT:P31579; UNIPARC:UPI000012E286; GB:M96169; NID:g213505; PIDN:10984043
 A;Experimental source: orange red variety, embryo
 A;Note: sequence extracted from NCBI backbone (NCBIN:114767, NCBIP:114768)
 A;Note: part of this sequence, including the amino end of the mature protein, was determined
 C;Superfamily: astacin; astacin homology
 C;Keywords: glycoprotein; hydrolase; metalloproteinase; zinc
 F;1-20/Domain: signal sequence #status predicted <SIG>
 F;21-71/Domain: propeptide #status predicted <PRO>
 F;72-271/Product: low choriolytic hatching proteinase #status predicted <MAT>
 F;91-271/Domain: astacin homology <AST>
 F;30,54,211/Binding site: carbohydrate (Asn) (covalent) #status predicted
 F;172,176,182,228/Binding site: zinc (His, His, His, Tyr) #status predicted
 F;173/Active site: Glu #status predicted

Query Match 73.9%; Score 34; DB 2; Length 271;
 Best Local Similarity 66.7%; Pred. No. 21;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
 |||||
 Db 168 AVIQHELLH 176

RESULT 11

137560
 protein-tyrosine kinase (EC 2.7.1.112) ryk - human
 C;Species: *Homo sapiens* (man)
 C;Date: 04-Oct-1996 #sequence_revision 04-Oct-1996 #text_change 05-Oct-2004
 C;Accession: 137560; A38269; S31579
 R;Tamagnone, L.; Partanen, J.; Armstrong, E.; Lasota, J.; Ohgami, K.; Tazunoki, T.; LaFollette, M.; O'Connell, J.
 Oncogene 8, 2009-2014, 1993
 A;Title: The human ryk cDNA sequence predicts a protein containing two putative transmembrane domains
 A;Reference number: 137560; MUID:93288416; PMID:8390040
 A;Accession: 137560
 A;Status: preliminary; translated from GB/EMBL/DBJ

A;Molecule type: mRNA
 A;Residues: 1-607 <RES>
 A;Cross-references: UNIPARC:UPI000016AAA8; EMBL:X59970; NID:g32461; PIDN:CAA49591.1; PID:10984043
 R;Partanen, J.; Mäkelä, T.P.; Alitalo, R.; Lehtvaeslahti, H.; Alitalo, K.
 Proc. Natl. Acad. Sci. U.S.A. 87, 8913-8917, 1990
 A;Title: Putative tyrosine kinases expressed in K-562 human leukemia cells.
 A;Reference number: A38268; MUID:91062389; PMID:2247464
 A;Accession: A38269
 A;Status: nucleic acid sequence not shown; not compared with conceptual translation
 A;Molecule type: mRNA
 A;Residues: 467-523 <PAR>
 A;Cross-references: UNIPARC:UPI000017A3C5
 C;Genetics:
 A;Gene: GDB:RYK; D3S3195
 A;Cross-references: GDB:217730
 A;Map position: 3q22-3q22
 C;Keywords: ATP; magnesium; phosphotransferase; tyrosine-specific protein kinase
 F;328-603/Domain: protein kinase homology <KIN>
 F;336-344/Region: protein kinase ATP-binding motif
 F;364,381,465/Active site: Lys, Glu, Asp #status predicted
 F;470,483/Binding site: magnesium (Asn, Asp) #status predicted

Query Match 73.9%; Score 34; DB 2; Length 607;
 Best Local Similarity 55.6%; Pred. No. 52;
 Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
 |||||
 Db 436 AISQHDLVH 444

RESULT 12
 A34612
 zinc finger protein ZNF7 - human
 N;Alternate names: zinc finger protein kox4
 C;Species: *Homo sapiens* (man)
 C;Date: 22-Jun-1990 #sequence_revision 22-Jun-1990 #text_change 09-Jul-2004
 C;Accession: A34612; A56409; S10421; I37972
 R;Lania, L.; Donati, E.; Pannuti, A.; Pascucci, A.; Pengue, G.; Feliciello, I.; La Mantia, G.
 Genomics 6, 333-340, 1990
 A;Title: cDNA isolation, expression analysis, and chromosomal localization of two human zinc finger proteins
 A;Reference number: A34612; MUID:90169993; PMID:2106481
 A;Accession: A34612
 A;Molecule type: mRNA
 A;Residues: 1-686 <LAN>
 A;Cross-references: UNIPROT:P17097; UNIPARC:UPI000013C3F8; GB:M29580; NID:g340445; PIDN:10984043
 R;Bray, P.; Lichter, P.; Thiesen, H.J.; Ward, D.C.; David, I.B.
 Proc. Natl. Acad. Sci. U.S.A. 88, 9563-9567, 1991
 A;Title: Characterization and mapping of human genes encoding zinc finger proteins.
 A;Reference number: A56409; MUID:92052132; PMID:1946370
 A;Accession: A56409
 A;Molecule type: DNA
 A;Residues: 425-589 <BRA>
 A;Cross-references: UNIPARC:UPI0000178A54; GB:M77170
 R;Thiesen, H.J.
 submitted to the EMBL Data Library, March 1990
 A;Reference number: S10397
 A;Accession: S10421
 A;Molecule type: mRNA
 A;Residues: 413-468 <THI>
 A;Cross-references: UNIPARC:UPI000016ABC5; EMBL:X52335; NID:g34165; PIDN:CAA36561.1; PID:10984043
 R;Thiesen, H.J.
 New Biol. 2, 363-374, 1990
 A;Title: Multiple genes encoding zinc finger domains are expressed in human T cells.
 A;Reference number: I37949; MUID:91145339; PMID:2288909
 A;Accession: I37972
 A;Status: translated from GB/EMBL/DBJ
 A;Molecule type: mRNA
 A;Residues: 413-468 <RES>
 A;Cross-references: UNIPARC:UPI000016ABC5; EMBL:X52335; NID:g34165; PIDN:CAA36561.1; PID:10984043
 C;Genetics:
 A;Gene: GDB:ZNF7
 A;Cross-references: GDB:120509; OMIM:194531

A:Map position: 8q24.3-8q24.3
A:Superfamily: zinc finger protein ZFP-36; LIM metal-binding repeat homology
C:Keywords: DNA binding; zinc finger

Query Match 73.9%; Score 34; DB 2; Length 686;
Best Local Similarity 62.5%; Pred. No. 60;
Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 2 VSEHQLLH 9
|:|:|:|
Db 428 LSQHQLLH 435

RESULT 13
HYHUNA
meprin A (EC 3.4.24.18) alpha chain precursor - human
N:Alternate names: intestinal brush border metalloendopeptidase; N-benzoyl-L-tyrosyl-p-a
C:Species: Homo sapiens (man)
C:Date: 19-May-1994 #sequence revision 16-Feb-1996 #text_change 09-Jul-2004
C:Accession: S60193; S39464; S39465; A41196
R:Elender, J.A.; Grunberg, J.; Sterchi, E.E.
submitted to the EMBL Data Library, August 1994
A:Reference number: S60193
A:Accession: S60193
A:Molecule type: mRNA
A:Residues: 1-746 <ELD>
A:Cross-references: UNIPROT:Q16819; UNIPARC:UPI000012EF0A; EMBL:M82962; NID:G535474; PID
R:Dunermuth, E.; Elender, J.A.; Gruenberg, J.; Jiang, W.; Sterchi, E.E.
FEBS Lett. 335, 367-375, 1993
A:Title: Cloning of the PABA peptide hydrolase alpha subunit (PPH-alpha) from human smal
A:Reference number: S39464; MUID:94085556; PMID:8262185
A:Accession: S39464
A:Molecule type: mRNA
A:Residues: 33-746 <DUM>
A:Cross-references: UNIPARC:UPI0000172D13
A:Accession: S39465
A:Molecule type: protein
A:Residues: 66-83 <DU2>
A:Cross-references: UNIPARC:UPI0000172D13
A:Note: human meprin A alpha chain appears to be expressed in intestine but not in kidne
R:Dunermuth, E.; Sterchi, E.E.; Jiang, W.; Wolz, R.U.; Bond, J.S.; Flannery, A.V.; Beyno
J. Biol. Chem. 266, 21381-21385, 1991
A:Title: The astacin family of metalloendopeptidases.
A:Reference number: A41196; MUID:92042028; PMID:1939172
A:Accession: A41196
A:Molecule type: mRNA
A:Residues: 65-263 <DU3>
A:Cross-references: UNIPARC:UPI0000172D15; GB:M82962; GB:M74238
C:Genetics:
A:Gene: GDB:MEPIA
A:Cross-references: GDB:371059; OMIM:600388
A:Map position: 6p21.2-6p21.1
A:Complex: may form homodimers, homotetramers, or heterotetramers with two alpha chains
C:Function:
A:Description: zinc metalloprotease
C:Superfamily: meprin; astacin homology; EGF homology; MAM homology
C:Keywords: glycoprotein; hydrolase; metalloproteinase; transmembrane protein; zinc
F:1-21/Domain: signal sequence #status predicted <SIG>
F:22-65/Domain: propeptide #status predicted <PRO>
F:66-746/Product: meprin A alpha chain #status predicted <MAT>
F:75-261/Domain: astacin homology <AST>
F:264-433/Domain: MAM homology <MAM>
F:674-709/Domain: EGF homology <EGF>
F:718-740/Domain: transmembrane #status predicted <TRM>
F:107-259,128-147,674-685,679-694,696-709/Disulfide bonds: #status predicted
F:140,222,414,440,447,539/Binding site: carbohydrate (Asn) (covalent) #status predicted
F:155,159,165,214/Binding site: zinc (His, His, His, Tyr) #status predicted
F:156/Active site: Glu #status predicted

Query Match 73.9%; Score 34; DB 1; Length 746;
Best Local Similarity 55.6%; Pred. No. 66;
Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
|:|:|:|
Db 151 ATIEHEILH 159

RESULT 14
S24134
endopeptidase 2 (EC 3.4.24.-) - rat
N:Alternate names: endopeptidase 24.18
C:Species: Rattus norvegicus (Norway rat)
C:Date: 02-Dec-1993 #sequence_revision 01-Sep-1995 #text_change 09-Jul-2004
C:Accession: S24134
R:Corbell, D.; Gaudoux, F.; Wainwright, S.; Ingram, J.; Kenny, A.J.; Boileau, G.; Crine,
FEBS Lett. 309, 203-208, 1992
A:Title: Molecular cloning of the alpha-subunit of rat endopeptidase-24.18 (endopeptidas
A:Reference number: S24134; MUID:92371675; PMID:1505684
A:Accession: S24134
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-748 <COR>
A:Cross-references: UNIPROT:Q64230; UNIPARC:UPI000012EF0B; GB:S43408; NID:G254297; PID:
C:Superfamily: meprin; astacin homology; EGF homology; MAM homology
C:Keywords: hydrolase; metalloproteinase; zinc
F:76-262/Domain: astacin homology <AST>
F:265-434/Domain: MAM homology <MAM>
F:676-711/Domain: EGF homology <EGF>
F:156,160,166/Binding site: zinc (His) #status predicted
F:157/Active site: Glu #status predicted

Query Match 73.9%; Score 34; DB 2; Length 748;
Best Local Similarity 55.6%; Pred. No. 66;
Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
|:|:|:|
Db 152 ATIEHEILH 160

RESULT 15
S33642
homeotic protein zfh-2 - fruit fly (Drosophila melanogaster)
C:Species: Drosophila melanogaster
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 05-Oct-2004
C:Accession: S33642; S27817
R:Fortini, M.E.; Lai, Z.; Rubin, G.M.
Mech. Dev. 34, 113-122, 1991
A:Title: The Drosophila zfh-1 and zfh-2 genes encode novel proteins containing both zinc
A:Reference number: S33641; MUID:92001539; PMID:1680376
A:Accession: S33642
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-3005 <FOR>
A:Cross-references: UNIPROT:P28167; UNIPARC:UPI000013C3B0; EMBL:M63450; NID:G158822; PI
C:Genetics:
A:Gene: zfh-2
A:Cross-references: FlyBase:FBgn0004607
C:Keywords: DNA binding; homeobox; nucleus; transcription regulation; zinc finger
F:1798-1854/Domain: homeobox homology <HOX1>
F:2155-2211/Domain: homeobox homology <HOX2>
F:2761-2817/Domain: homeobox homology <HOX3>

Query Match 73.9%; Score 34; DB 2; Length 3005;
Best Local Similarity 100.0%; Pred. No. 3.1e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4 EHQLLH 9
|:|:|:|
Db 2388 EHQLLH 2393

Search completed: December 2, 2005, 23:29:14
Job time : 6.94382 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:38:37 ; Search time 25.0281 Seconds
(without alignments)
253.705 Million cell updates/sec

Title: US-10-691-125-2
Perfect score: 46
Sequence: 1 AVSEHQHLLH 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_05.80.*
1: uniprot_sprot.*
2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	46	100.0	94	Q95K22_FELCA	Q95k22 felis silve
2	46	100.0	121	PTHR_SHEEP	Q9GK30 oviss aries
3	46	100.0	175	PTHR_MOUSE	P22858 mus musculus
4	46	100.0	175	Q33XY9_HUMAN	Q53xy9 homo sapien
5	46	100.0	175	Q811S6_MOUSE	DR Q811s6 mus musculus
6	46	100.0	175	Q924X4_MOUSE	DR Q924x4 mus musculus
7	46	100.0	175	Q540C1_MOUSE	DR Q540c1 mus musculus
8	46	100.0	176	PTHR_CHICK	P17251 gallus gall
9	46	100.0	177	PTHR_BOVIN	P58073 bos taurus
10	46	100.0	177	PTHR_CANFA	P52211 canis famill
11	46	100.0	177	PTHR_HUMAN	P12272 homo sapien
12	46	100.0	177	PTHR_RABIT	Q9G1C7 oryctolagus
13	46	100.0	177	PTHR_RAT	P13085 rattus norv
14	46	100.0	177	Q6PH74_HUMAN	Q6fh74 homo sapien
15	46	100.0	177	Q65U02_PHOVI	Q65u02 phoca vitul
16	46	100.0	177	Q659U3_HALGR	Q659u3 halichoerus
17	46	100.0	177	Q866H2_PIG	Q866h2 sus scrofa
18	46	100.0	178	Q5TLZ2_CHICK	Q5tlz2 gallus gall
19	46	100.0	202	Q9BDZ3_RABIT	Q9bdz3 oryctolagus
20	40	87.0	170	Q7YR12_CEREL	Q7yr12 cervus elap
21	39	84.8	521	Q47M1_TETNG	Q47m1 tetraodon n
22	38	82.6	1160	Q54F05_DICDI	Q54f05 dictyosteli
23	37	80.4	594	Q5RKM1_BRARE	Q5rkm1 brachydanio
24	37	80.4	598	Q5RHM1_BRARE	Q5rhm1 brachydanio
25	37	80.4	932	Q4RF33_TETNG	Q4rf33 tetraodon n
26	36	78.3	215	RNT_VSERP	Q8ze08 versinia pe
27	36	78.3	215	Q66A36_YERPS	Q66a36 versinia ps
28	36	78.3	484	Q9RG14_ACTAC	Q9rg14 actinobacil
29	36	78.3	500	Q8BK5_MOUSE	Q8bk5 mus musculus
30	36	78.3	598	Q6FAI2_ACTAD	Q6fai2 acinetobact
31	36	78.3	663	Q5RHM2_BRARE	Q5rhm2 brachydanio

32	36	78.3	865	2	Q4QE53_LEIMA	Q4qe53 leishmania
33	36	78.3	885	2	Q82XC4_NITEU	Q82xc4 nitrosonoma
34	35	76.1	158	2	Q9CTX4_MOUSE	Q9ctx4 mus musculus
35	35	76.1	220	1	Y064_ARCFU	Q30172 archaesoglob
36	35	76.1	316	2	Q9VML5_DROME	Q9vml5 drosophila
37	35	76.1	429	2	Q7UKE3_RHOBA	Q7uke3 rhodospirill
38	35	76.1	911	2	Q4SMF7_TETNG	Q4smf7 tetraodon n
39	35	76.1	2193	2	Q4K992_PSEFS	Q4k992 pseudomonas
40	35	76.1	4410	2	Q4K993_PSEFS	Q4k993 pseudomonas
41	34	73.9	109	2	Q7KZ25_HUMAN	Q7kz25 homo sapien
42	34	73.9	190	2	Q5EVF0_UROOC	Q5evf0 oikopleura
43	34	73.9	202	2	Q92970_HUMAN	Q92970 homo sapien
44	34	73.9	218	2	Q8MHY6_CEBAP	Q8mhy6 cebus apell
45	34	73.9	218	2	Q8MJQ5_PPRIM	Q8mjq5 cebus xanth

ALIGNMENTS

RESULT 1
Q95K22_FELCA PRELIMINARY; PRT; 94 AA.
AC Q95K22;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DE Parathyroid hormone-related protein precursor (Fragment).
GN Name=PTHrP;
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
OC Felis.
OX NCBI_TaxID=9685;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX PubMed=11776973;
RA Tannehill-Gregg S., Kergosien E., Rosol T.J.;
RT "Feline head and neck squamous cell carcinoma cell line:
characterization, production of parathyroid hormone-related protein,
and regulation by transforming growth factor-beta.";
RL In Vitro Cell. Dev. Biol. Anim. 37:676-683(2001).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RA Tannehill-Gregg S.H., Rosol T.J., Kergosien E.A.;
RL Submitted (AUG-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY052414; AAL13054.1; -, mRNA.
DR HSRP; P12272; IBCG.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyrd hrm.
DR InterPro; IPR003626; PTH related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Signal.
FT SIGNAL. <1 22 Potential.
FT CHAIN 23 >94 parathyroid hormone-related protein.
FT NON_TER 1 1
FT NON_TER 94 94
SQ SEQUENCE 94 AA; 10717 MW; DBD9FEODC4D27C82 CRC64;

Query Match 100.0%; Score 46; DB 2; Length 94;
Best Local Similarity 100.0%; Pred. No. 0.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQHLLH 9
Db 23 AVSEHQHLLH 31

RESULT 2

PTHR SHEEP
 ID PTHR_SHEEP STANDARD; PRT; 121 AA.
 AC 09CK30;
 DT 16-OCT-2001 (Rel. 40, Created)
 DT 16-OCT-2001 (Rel. 40, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp)
 DE (Fragment).
 GN Name=PTHrP;
 OS Ovis aries (Sheep).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Bovidae; Caprinae; Ovis.
 OX NCBI_TaxID=9940;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Ovary;
 RA Hastie P.M., Beck N.F.G.;
 RT "Expression of mRNA encoding parathyroid hormone-related peptide (PTH-rp) in ovine ovarian follicles."
 RL Submitted (DSC-2000) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of cellular and organ growth, development, migration, differentiation and survival and of epithelial calcium ion transport. Regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth (By similarity).
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By similarity).
 CC -!- PTM: There are several secretory forms, including osteostatin, arising from endoproteolytic cleavage of the initial translation product. Each of these secretory forms is believed to have one or more of its own receptors that mediates the normal paracrine, autocrine and endocrine actions (By similarity).
 CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
 CC
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 CC
 CC EMBL; AF327654; AAG48348.1; -; mRNA.
 CC HSSP; P12272; 1BZG.
 CC InterPro; IPR001415; Parathyroid hrm.
 CC InterPro; IPR003626; PTH-related.
 CC PANTHER; PTHR17223; PTH-related; 1.
 CC Pfam; PF01279; Parathyroid; 1.
 CC ProDom; PD013225; PTH-related; 1.
 CC SMART; SM00087; PTH; 1.
 CC PROSITE; PS00335; PARATHYROID; 1.
 KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein; Signal.
 FT SIGNAL.
 FT SIGNAL.
 FT PROPEP 15 24
 FT CHAIN 27 >121
 FT MOTIF 98 119
 FT MOTIF 121 121
 FT NON TER 1 1
 FT NON TER 121 121
 SQ SEQUENCE 121 AA; 13658 MW; FA9437F5A5E041E1 CRC64;
 Query Match 100.0%; Score 46; DB 1; Length 121;
 Best Local Similarity 100.0%; Pred. No. 0.27;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Oy 1 AVSEHQLLH 9
 Db 27 AVSEHQLLH 35
 RESULT 3
 PTHR_MOUSE

ID PTHR_MOUSE STANDARD; PRT; 175 AA.
 AC P22858;
 DT 01-AUG-1991 (Rel. 19, Created)
 DT 01-AUG-1991 (Rel. 19, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp) (PLP)
 DE (Contains: Osteostatin).
 GN Name=PTHrP; Synonyms=Pthrp;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muroidae; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC MEDLINE=91065532; PubMed=2249778; DOI=10.1016/0378-1119(90)90362-U;
 RA Mangin M., Ikeda K., Broadus A.E.;
 RT "Structure of the mouse gene encoding parathyroid hormone-related peptide."
 RL Gene 95:195-202(1990).
 RN [2]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC STRAIN=FVB/N; TISSUE=Mammary gland;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.L., Wang J., Haie F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Brownstein M.J., Udén T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaby S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hultk S.W., Vallalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J.J., Helton E., Kettelman M., Maman A., Rodriguez S., Sanchez A., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallos D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of cellular and organ growth, development, migration, differentiation and survival and of epithelial calcium ion transport. Regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth (By similarity).
 CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone resorption (By similarity).
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By similarity).
 CC -!- PTM: There are several secretory forms, including osteostatin, arising from endoproteolytic cleavage of the initial translation product. Each of these secretory forms is believed to have one or more of its own receptors that mediates the normal paracrine, autocrine and endocrine actions (By similarity).
 CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
 CC
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 CC
 CC EMBL; M60057; AAA63639.1; -; Genomic DNA.
 CC EMBL; M60058; AAA63639.1; JOINED; Genomic DNA.
 CC EMBL; M60056; AAA63639.1; JOINED; Genomic DNA.
 CC EMBL; BC058187; AAH58187.1; -; mRNA.
 CC PIR; JN0103; JN0103.
 CC HSSP; P12272; 1BZG.

```
DR Ensembl; ENSMUSG00000048776; Mus musculus.
DR MGI; MGI:97800; Pthlh.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0048286; P:alveolus development; IMP.
DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
DR GO; GO:0001501; P:skeletal development; IMP.
DR GO; GO:0043129; P:surfactant homeostasis; IMP.
DR InterPro; IPR001415; Parathyrd_hrm.
DR PANTHER; PTHR17223; PTH_related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
KW Signal.
FT SIGNAL 1 24 Potential.
FT PROPEP 25 34
FT CHAIN 37 175 Parathyroid hormone-related protein.
FT PEPTIDE 143 173 Osteostatin (By similarity).
FT MOTIF 108 129 Nuclear localization signal (By similarity).
FT SEQUENCE 175 AA; 20100 MW; 6D27CFCC31900B45 CRC64;

Query Match 100.0%; Score 46; DB 1; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.42;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLH 9
Db |||||
37 AVSEHQLLH 45

RESULT 4
Q53XY9 HUMAN PRELIMINARY; PRT; 175 AA.
AC Q53XY9;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone-like hormone.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RP NUCLEOTIDE SEQUENCE.
RA Kaline N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA Koundinya M., Raphael J., Moreira D., Kelley T., LaBaer J., Lin Y.,
RA Phelan M., Farmer A.;
RT "Cloning of human full-length cDNAs in BD Creator (TM) System Donor
vector.";
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; BT007178; AAP35842.1; -; mRNA.
SQ SEQUENCE 175 AA; 19900 MW; 4FE954C51DB3E7D CRC64;

Query Match 100.0%; Score 46; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.42;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLH 9
Db |||||
37 AVSEHQLLH 45

RESULT 5
Q811S6 MOUSE PRELIMINARY; PRT; 175 AA.
AC Q811S6;
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
```

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DE Parathyroid hormone-related peptide.
GN Name=Pthlh;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=SPRET/EI; TISSUE=Lung;
RX MEDLINE=22948948; PubMed=14586397; DOI=10.1038/sj.onc.1207088;
RA Benelli R., Peissel B., Manenti G., Gariboldi M., Vanzetto C.,
RA Albini A., Dragani T.A.;
RT "Allele-specific patterns of the mouse parathyroid hormone-related
protein: influences on cell adhesion and migration.";
RL Oncogene 22:7711-7715(2003).
DR EMBL; AY183377; AAC25537.1; -; mRNA.
DR HSP; P12272; IBZG.
DR MGI; MGI:97800; Pthlh.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0048286; P:alveolus development; IMP.
DR GO; GO:0030855; P:bone mineralization; IMP.
DR GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
DR GO; GO:0043129; P:skeletal development; IMP.
DR InterPro; IPR001415; Parathyrd_hrm.
DR PANTHER; PTHR03626; PTH_related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
DR SEQUENCE 175 AA; 20150 MW; 6C00142741900B5B CRC64;

Query Match 100.0%; Score 46; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.42;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AVSEHQLLH 9
Db |||||
37 AVSEHQLLH 45

RESULT 6
Q924X4 MOUSE PRELIMINARY; PRT; 175 AA.
AC Q924X4;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Parathyroid hormone-related protein precursor.
GN Name=Pthlh;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C3H/HeJ; TISSUE=Lung;
RX MEDLINE=20552296; PubMed=11103933; DOI=10.1038/sj.onc.1203916;
RA Manenti G., Peissel B., Gariboldi M., Falvella F.S., Zaffaroni D.,
RA Allaria B., Fazzaglia S., Rebessi S., Covelli V., Saran A.,
RA Dragani T.A.;
RT "A cancer modifier role for parathyroid hormone-related protein.";
RL Oncogene 19:5324-5328(2000).
DR EMBL; AJ278119; CAC39218.1; -; mRNA.
DR HSP; P12272; IBZG.
DR MGI; MGI:97800; Pthlh.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0048286; P:alveolus development; IMP.
```

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DR GO; GO:0030282; P:bone mineralization; IMP.
DR GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
DR GO; GO:0001501; P:skeletal development; IMP.
DR GO; GO:0043129; P:surfactant homeostasis; IMP.
DR InterPro; IPR001415; Parathyrd hrm.
DR InterPro; IPR003626; PTH related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW SIGNAL.
FT SIGNAL.
FT CHAIN
SQ SEQUENCE 175 AA; 20096 MW; 6D22BCC31900B45 CRC64;
Query Match 100.0%; Score 46; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.42;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 AVSEHQQLLH 9
Db 37 AVSEHQQLLH 45
RESULT 7
Q540C1 MOUSE
ID Q540C1 MOUSE PRELIMINARY; PRT; 175 AA.
AC Q540C1;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone-related protein precursor.
GN Name=Pthlh; Synonyms=Pthlp;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C57BL/6;
RA Toribio R.E., Rourke K., Levine A., Kohn C.W., Rosol T.J.;
RT "Molecular cloning of the cDNA for Mus musculus parathyroid hormone-
related protein (PTHrP).";
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY220497; AA064343.1; -; mRNA.
DR MGI; MGI:97800; Pthlh.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0048286; P:alveolus development; IMP.
DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
DR GO; GO:0001501; P:skeletal development; IMP.
DR GO; GO:0043129; P:surfactant homeostasis; IMP.
KW SIGNAL.
FT SIGNAL.
FT CHAIN
SQ SEQUENCE 175 AA; 20100 MW; 6D27CFC31900B45 CRC64;
Query Match 100.0%; Score 46; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.42;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 AVSEHQQLLH 9
Db 37 AVSEHQQLLH 45
RESULT 8
PTHrP_CHICK
ID PTHrP_CHICK STANDARD; PRT; 176 AA.
AC P17251;
DT 01-AUG-1990 (Rel. 15, Created)

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DT 01-AUG-1990 (Rel. 15, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTHrP)
DE [Contains: Osteostatin (PTHrP[107-139])].
GN Name=PTHrP;
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC MEDLINE=90272428; PubMed=2349111;
RA Thiede M.A., Rutledge S.J.;
RT "Nucleotide sequence of a parathyroid hormone-related peptide
expressed by the 10 day chicken embryo.";
RL Nucleic Acids Res. 18:3062-3062(1990).
[2]
RP STRUCTURE BY NMR OF 145-176.
RX MEDLINE=99296387; PubMed=10366729; DOI=10.1016/S0167-4838(99)00078-3;
RA Cuthbertson R.M., Kemp B.E., Barden J.A.;
RT "Structure study of osteostatin PTHrP[Thr107] (107-139).";
RL Biochim. Biophys. Acta 1432:64-72(1999).
CC -1- FUNCTION: Neuroendocrine peptide which is a critical regulator of
cellular and organ growth, development, migration, differentiation
and survival and of epithelial calcium ion transport (By
similarity).
CC -1- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
resorption (By similarity).
CC -1- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
similarity).
CC -1- PTM: There are several secretory forms, including osteostatin,
arising from endoproteolytic cleavage of the initial translation
product. Each of these secretory forms is believed to have one or
more of its own receptors that mediates the normal paracrine,
autocrine and endocrine actions (By similarity).
CC -1- SIMILARITY: Belongs to the parathyroid hormone family.
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removed.
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DR EMBL; X52131; CAA36376.1; -; mRNA.
DR PIR; S10202; S10202.
DR HSSP; P12272; IBZG.
DR Ensembl; ENSGALG0000017295; Gallus gallus.
DR InterPro; IPR001415; Parathyrd hrm.
DR InterPro; IPR003626; PTH_related.
DR PANTHER; PTHR17223; PTH_related; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
Signal.
FT SIGNAL.
FT PROPEP 1 25 Potential.
FT CHAIN 26 37 By similarity.
FT CHAIN 38 176 Parathyroid hormone-related protein.
FT PEPTIDE 145 176 Osteostatin.
FT MOTIF 109 130 Nuclear localization signal (By
similarity).
SQ SEQUENCE 176 AA; 20226 MW; 60C8AB30ACF5293B CRC64;
Query Match 100.0%; Score 46; DB 1; Length 176;
Best Local Similarity 100.0%; Pred. No. 0.42;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 AVSEHQQLLH 9
Db 38 AVSEHQQLLH 46

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	1	24	Potential.
FT	SIGNAL		
KW	Signal.		
KW	Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;		
DR	PROSTINE; PS00335; PARATHYROID; 1.		

FT PROPEP 25 34 By similarity.
 FT CHAIN 37 177 Parathyroid hormone-related protein.
 FT PPTIDE 143 175 Osteostatin [By similarity]. (By
 FT MOTIF 108 129 Nuclear localization signal (By
 similarity).
 SQ SEQUENCE 177 AA; 20299 MW; 93F57235C189A2CD CRC64;
 Query Match 100.0%; Score 46; DB 1; Length 177;
 Best Local Similarity 100.0%; Pred. NO. 0.43; Indels 0; Gaps 0;
 Matches 9; Conservative 0; Mismatches 0;
 QY 1 AVSEHQLLH 9
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 Db 37 AVSEHQLLH 45
 RESULT 11
 PTHR HUMAN
 ID _PTHR HUMAN STANDARD; PRT; 177 AA.
 AC P12272; Q15351; AC P12272; Q15351; PRT; 177 AA.
 DT 01-OCT-1989 (Rel. 12, Created)
 DT 01-OCT-1989 (Rel. 12, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Parathyroid hormone-related protein precursor (PTH-rP) (PTHrP)
 DE [Contains: PTHrP[1-36]; PTHrP[38-94]; Osteostatin (PTHrP[107-139])].
 GN Name=PTHrP; Synonyms=PTHrP;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
 OC Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP NUCLEOTIDE SEQUENCE, AND PARTIAL PROTEIN SEQUENCE.
 RX MEDLINE=87292119; PubMed=3616618;
 RA Suva L.J., Winslow G.A., Wettenhall R.E.H., Hammonds R.G.,
 Moseley J.M., Diefenbach-Jagger H., Rodda C.P., Kemp B.E.,
 Rodriguez H., Chen E.Y., Hudson P.J., Martin T.J., Wood W.I.;
 RA "A parathyroid hormone-related protein implicated in malignant
 RT hypercalcemia: cloning and expression.";
 RL Science 237:893-896 (1987).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=88124888; PubMed=2829195;
 RA Mangin M., Webb A.C., Dreyer B.E., Posillico J.T., Ikeda K.,
 Weir E.C., Stewart A.F., Bander N.H., Millsone L., Barton D.E.,
 RA Francke U., Broadus A.E.;
 RA "Identification of a cDNA encoding a parathyroid hormone-like peptide
 RT from a human tumor associated with humoral hypercalcemia of
 RT malignancy.";
 RL Proc. Natl. Acad. Sci. U.S.A. 85:597-601 (1988).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89214227; PubMed=2708388;
 RA Yasuda T., Banville D., Hendy G.N., Goltzman D.;
 RA "Characterization of the human parathyroid hormone-like peptide gene.
 RT Functional and evolutionary aspects.";
 RL J. Biol. Chem. 264:7720-7725 (1989).
 RN [4]
 RP NUCLEOTIDE SEQUENCE (ISOFORM 2).
 RX MEDLINE=88262996; PubMed=3290897;
 RA Thiede M.A., Stewler G.J., Nissenson R.A., Rosenblatt M., Rodan G.A.;
 RA "Human renal carcinoma expresses two messages encoding a parathyroid
 RT hormone-like peptide: evidence for the alternative splicing of a
 RT single-copy gene.";
 RL Proc. Natl. Acad. Sci. U.S.A. 85:4605-4609 (1988).
 RN [5]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 2).
 RC TISSUE=Brain;
 RX MEDLINE=42388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,

RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Saplenton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Rana S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Holton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
 RN [6]
 RP NUCLEOTIDE SEQUENCE OF 1-33.
 RC TISSUE=Liver;
 RX MEDLINE=89306685; PubMed=2744490; DOI=10.1016/0378-1119(89)90363-6;
 RA Suva L.J., Mather K.A., Gillespie M.T., Webb G.C., Ng K.W.,
 RA Winslow G.A., Wood W.I., Martin T.J., Hudson P.J.;
 RT "Structure of the 5' flanking region of the gene encoding human
 RT parathyroid-hormone-related protein (PTHrP).";
 RL Gene 77:95-105 (1989).
 RN [7]
 RP PROTEIN SEQUENCE OF 37-52.
 RX MEDLINE=87260936; PubMed=2885845;
 RA Moseley J.M., Kubota M., Diefenbach-Jagger H., Wettenhall R.E.H.,
 RA Kemp B.E., Suva L.J., Rodda C.P., Ebeling P.R., Hudson P.J.,
 RA Zajac J.D., Martin T.J.;
 RT "Parathyroid hormone-related protein purified from a human lung cancer
 RT cell line.";
 RL Proc. Natl. Acad. Sci. U.S.A. 84:5048-5052 (1987).
 RN [8]
 RP ALTERNATIVE SPLICING (ISOFORM 3).
 RX MEDLINE=89184636; PubMed=2928340;
 RA Mangin M., Ikeda K., Dreyer B.E., Broadus A.E.;
 RT "Isolation and characterization of the human parathyroid hormone-like
 RT peptide gene.";
 RL Proc. Natl. Acad. Sci. U.S.A. 86:2408-2412 (1989).
 RN [9]
 RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
 RX MEDLINE=92007462; PubMed=1915066;
 RA Fenton A.J., Kemp B.E., Kent G.N., Moseley J.M., Zheng M.H.,
 RA Rowe D.J., Britto J.M., Martin T.J., Nicholson G.C.;
 RT "A carboxyl-terminal peptide from the parathyroid hormone-related
 RT protein inhibits bone resorption by osteoclasts.";
 RL Endocrinology 129:1762-1768 (1991).
 RN [10]
 RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
 RX MEDLINE=92063907; PubMed=1954916;
 RA Fenton A.J., Kemp B.E., Hammonds R.G., Mitchell K., Moseley J.M.,
 RA Martin T.J., Nicholson G.C.;
 RT "A potent inhibitor of osteoclastic bone resorption within a highly
 RT conserved pentapeptide region of parathyroid hormone-related protein;
 RT PTHrP107-113.";
 RL Endocrinology 129:3424-3426 (1991).
 RN [11]
 RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
 RX MEDLINE=97289439; PubMed=9144344;
 RA Martinez M.E., Garcia-Ocana A., Sanchez M., Medina S., del Campo T.,
 RA Valin A., Sanchez-Cabezudo M.J., Ebril P.;
 RT "C-terminal parathyroid hormone-related protein inhibits proliferation
 RT and differentiation of human osteoblast-like cells.";
 RL J. Bone Miner. Res. 12:778-785 (1997).
 RN [12]
 RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
 RX MEDLINE=97200810; PubMed=9048639; DOI=10.1210/en.138.3.1299;
 RA Cornish J., Callon K.E., Nicholson G.C., Reid I.R.;
 RT "Parathyroid hormone-related protein-(107-139) inhibits bone
 RT resorption in vivo.";
 RL Endocrinology 138:1299-1304 (1997).

[13]
RN NUCLEOCYTOPLASTIC SHUTTLLING.
RX MEDLINE=22736810; PubMed=12852260; DOI=10.1016/S0083-6729(03)01010-0;
RA Jans D.A., Thomas R.J., Gillespie M.T.;
RT "Parathyroid hormone-related protein (PTHrP): a nucleocytoplasmic
shuttling protein with distinct paracrine and intracrine roles.";
RL Vitam. Horm. 66:345-384 (2003).
[14]
RN NUCLEAR LOCALIZATION SIGNAL.
RX MEDLINE=21294781; PubMed=11401507; DOI=10.1006/bbrc.2001.4607;
RA Lam M.H., Hu W., Xiao C.Y., Gillespie M.T., Jans D.A.;
RT "Molecular dissection of the importin beta1-recognized nuclear
targeting signal of parathyroid hormone-related protein.";
RL Biochem. Biophys. Res. Commun. 282:629-634 (2001).
[15]
RN REVIEW
RX MEDLINE=22425984; PubMed=12538599; DOI=10.1210/en.2002-220818;
RA Fiaschi-Taesch N.M., Stewart A.F.;
RT "Minireview: parathyroid hormone-related protein as an intracrine
factor -- trafficking mechanisms and functional consequences.";
RL Endocrinology 144:407-411 (2003).
[16]
RN STRUCTURE BY NMR OF 37-70.
RX MEDLINE=99158054; PubMed=10050767; DOI=10.1016/S0014-5793(99)01658-5;
RA Weidner M., Marx U.C., Seidel G., Schafer W., Hoffmann E., Esswein A.,
Rosch P.;
RT "The structure of human parathyroid hormone-related protein(1-34) in
near-physiological solution.";
RL FEBS Lett. 444:239-244 (1999).
[17]
RN X-RAY CRYSTALLOGRAPHY (2.9 ANGSTROMS) OF 103-130.
RX MEDLINE=22394015; PubMed=12504010; DOI=10.1016/S1097-2765(02)00727-X;
RA Cingolani G., Bednenko J., Gillespie M.T., Gerace L.;
RT "Molecular basis for the recognition of a nonclassical nuclear
localization signal by importin beta.";
RL Mol. Cell 10:1345-1353 (2002).
[18]
RN FUNCTION: Neuroendocrine peptide which is a critical regulator of
cellular and organ growth, development, migration, differentiation
and survival and of epithelial calcium ion transport. Regulates
endochondral bone development and epithelial-mesenchymal
interactions during the formation of the mammary glands and teeth.
[19]
RN FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
resorption.
[20]
RN SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted.
[21]
RN ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=3;
Comment=Additional isoforms seem to exist;
Name=1;
IsoId=P12272-1; Sequence=Displayed;
Name=2;
IsoId=P12272-2; Sequence=VSP_004534;
Name=3;
IsoId=P12272-3; Sequence=VSP_004535;
[22]
RN TISSUE SPECIFICITY: Ubiquitous. Also expressed in the mammary
gland.
[23]
RN PTM: There are 3 principal secretory forms, called PTHrP(1-36),
PTHrP(38-94), and osteostatin (PTHrP(107-139)) arising from
endoproteolytic cleavage of the initial translation product. Each
of these secretory forms is believed to have one or more of its
own receptors that mediates the normal paracrine, autocrine and
endocrine actions.
[24]
RN DISEASE: Produced by many tumors from patients with HHM (humoral
hypercalcemia of malignancy).
[25]
RN SIMILARITY: Belongs to the parathyroid hormone family.

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between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.
EMBL; M17183; AAA60221.1; -; Genomic_DNA.

Query Match 100.0%; Score 46; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 AVSEHQLLH 9
DB 37 AVSEHQLLH 45

RESULT 12
PTHR RABIT STANDARD; PRT; 177 AA.
AC Q9GLC7;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTHrP)
DE [Contains: Osteostatin].
GN Name=PTHrP; Synonyms=PTHrP;
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC Oryctolagus
OX NCBI_TaxID=9986;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA McCaughen-Garucci J.F., Mitnick M., Emanuel J.R., Dworetzky S.I.;
RT "Cloning and expression of rabbit parathyroid hormone-related
protein.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of
cellular and organ growth, development, migration, differentiation
and survival and of epithelial calcium ion transport. Regulates
endochondral bone development and epithelial-mesenchymal
interactions during the formation of the mammary glands and teeth
(By similarity).
CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
resorption (By similarity).
CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
similarity).
CC -!- PTM: There are several secretory forms, including osteostatin,
arising from endoproteolytic cleavage of the initial translation
product. Each of these secretory forms is believed to have one or
more of its own receptors that mediates the normal paracrine,
autocrine and endocrine actions (By similarity).
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.

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between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.
EMBL; AF300703; AAG13414.1; -; mRNA.
DR HSSP; P12272; 1BZG.
DR InterPro; IPR001415; Parathyrd hrm.
DR InterPro; IPR003626; PTH_related.
DR PANTHER; PTHR17223; PTH_related; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
Signal.
FT SIGNAL 1 24 Potential.
FT PROPEP 25 34 By similarity.
FT CHAIN 37 177 Parathyroid hormone-related protein.
FT PEPTIDE 143 175 Osteostatin (By similarity).
FT MOTIF 108 129 Nuclear localization signal (By
similarity).
SQ SEQUENCE 177 AA; 20005 MW; E2D9F4327657B919 CRC64;

Query Match 100.0%; Score 46; DB 1; Length 177;

Best Local Similarity 100.0%; Pred. No. 0.43; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0;

Qy 1 AVSEHQLLH 9
Db 37 AVSEHQLLH 45

RESULT 13

PTHR RAT STANDARD; PRT; 177 AA.
AC P13085;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTHrp) (PLP)
DE [Contains: Osteostatin].
GN Name=Pthlh; Synonyms=Pthrp;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
[1]
RN RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=89019361; PubMed=3175653;
RA Thiede M.A., Rodan G.A.;
RT "Expression of a calcium-mobilizing parathyroid hormone-like peptide
in lactating mammary tissue.";
RL Science 242:278-280(1988).
[2]
RN RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=89313794; PubMed=2747658;
RA Yasuda T., Banville D., Rabbani S.A., Hendy G.N., Goltzman D.;
RT "Parathyroid hormone-like peptide: comparison with the human
homologue and expression in malignant and normal tissue.";
RL Mol. Endocrinol. 3:518-525(1989).
[3]

RN RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=90258937; PubMed=2342478;
RA Karaplis A.C., Yasuda T., Hendy G.N., Goltzman D.;
RT "Gene-encoding parathyroid hormone-like peptide: nucleotide sequence
of the rat gene and comparison with the human homologue.";
RL Mol. Endocrinol. 4:441-446(1990).
CC -1- FUNCTION: Neuroendocrine peptide which is a critical regulator of
cellular and organ growth, development, migration, differentiation
and survival and of epithelial calcium ion transport. Regulates
endochondral bone development and epithelial-mesenchymal
interactions during the formation of the mammary glands and teeth
(By similarity).
CC -1- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
resorption (By similarity).
CC -1- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
similarity).
CC -1- PTM: There are several secretory forms, including osteostatin,
arising from endoproteolytic cleavage of the initial translation
product. Each of these secretory forms is believed to have one or
more of its own receptors that mediates the normal paracrine,
autocrine and endocrine actions (By similarity).
CC -1- SIMILARITY: Belongs to the parathyroid hormone family.

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the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.

EMBL; M21967; AAA41981.1; -; mRNA.
EMBL; M31603; AAA41980.1; -; mRNA.
EMBL; M34112; AAA41889.1; -; Genomic DNA.
EMBL; M34108; AAA41889.1; JOINED; Genomic DNA.
EMBL; M34111; AAA41889.1; JOINED; Genomic DNA.
PIR; A34723; A30012.

DR HSP; P12272; IBZG.
DR RGD; 3441; Pthlh.
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003626; PTH_related.
DR PANTHER; PTHR17223; PTH_related; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH_1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
KW Signal.
FT SIGNAL 1 24 Potential.
FT PROPEP 25 34
FT CHAIN 37 177 Parathyroid hormone-related protein.
FT PEPTIDE 143 175 Osteostatin (By similarity).
FT MOTIF 108 129 Nuclear localization signal (By
similarity).
SQ SEQUENCE 177 AA; 20204 MW; 11091EC48CA73B20 CRC64;

Query Match 100.0%; Score 46; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 37 AVSEHQLLH 45

RESULT 14

Q6FH74 HUMAN
ID Q6FH74_HUMAN PRELIMINARY; PRT; 177 AA.
AC Q6FH74;
DT 10-MAY-2005 (T-EMBLrel. 30, Created)
DT 10-MAY-2005 (T-EMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (T-EMBLrel. 30, Last annotation update)
DE PTHLH protein (Fragment).
GN Name=PTHLH;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Halleck A., Ebert L., Mkoondinya M., Schick M., Eisenstein S.,
RA Neubert P., Kstrang K., Schatten R., Shen B., Henze S., Mar W.,
RA Korn B., Zuo D., Hu Y., LaBaer J.;
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR541882; CAG46680.1; -; mRNA.
FT NON_TER 177 177
SQ SEQUENCE 177 AA; 20194 MW; 449DFEE954C51DB CRC64;

Query Match 100.0%; Score 46; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 37 AVSEHQLLH 45

RESULT 15

Q65902 PHOVI
ID Q65902_PHOVI PRELIMINARY; PRT; 177 AA.
AC Q65902;
DT 25-OCT-2004 (T-EMBLrel. 28, Created)
DT 25-OCT-2004 (T-EMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (T-EMBLrel. 28, Last annotation update)
DE Parathyroid hormone related protein (Fragment).
GN Name=pthlp;
OS Phoca vitulina (Harbor seal).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Pinnipedia; Phocidae;

OC Phoca.
OX NCBI_TaxID=9720;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RA Hammond H.A.; Bennett K.A.; Walton M.J.; Hall A.J.;
RT "Molecular cloning and expression of leptin from seals and its
RT potential role in the control of pinniped pulmonary surfactant
RT secretion.";
RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RA Hammond J.A.;
RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; AJ831411; CAH39862.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyrd hrm.
DR InterPro; IPR003626; PTH related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
FT NON TER 177 177
SQ SEQUENCE 177 AA; 20284 MW; 6B9941EBD22F5397 CRC64;

Query Match 100.0%; Score 46; DB 2; Length 177;
Best Local Similarity 100.0%; Pred.No. 0.43;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLIH 9
Db 37 AVSEHQLIH 45

Search completed: December 2, 2005, 23:19:34
Job time : 29.2281 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:28:10 ; Search time 6.11798 Seconds
(without alignments)
121.622 Million cell updates/sec

Title: US-10-691-125-2

Perfect score: 46

Sequence: 1 AVSEHQQLH 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents, AA.*

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- 2: /cgn2_6/ptodata/1/iaa/6-COMB.pep.*
- 3: /cgn2_6/ptodata/1/iaa/H-COMB.pep.*
- 4: /cgn2_6/ptodata/1/iaa/PCITUS-COMB.pep.*
- 5: /cgn2_6/ptodata/1/iaa/RE-COMB.pep.*
- 6: /cgn2_6/ptodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	46	100.0	9	2	US-09-421-379-8
2	46	100.0	12	2	US-08-903-124-87
3	46	100.0	14	2	US-09-421-379-4
4	46	100.0	16	6	5460978-4
5	46	100.0	19	6	5217896-1
6	46	100.0	29	2	US-09-843-221A-152
7	46	100.0	30	2	US-09-843-221A-76
8	46	100.0	30	2	US-09-843-221A-79
9	46	100.0	30	2	US-09-843-221A-134
10	46	100.0	30	2	US-09-843-221A-135
11	46	100.0	30	2	US-09-843-221A-136
12	46	100.0	30	2	US-09-843-221A-137
13	46	100.0	30	2	US-09-843-221A-138
14	46	100.0	30	2	US-09-843-221A-144
15	46	100.0	30	2	US-09-843-221A-145
16	46	100.0	30	2	US-09-843-221A-147
17	46	100.0	30	2	US-09-843-221A-148
18	46	100.0	30	2	US-09-843-221A-149
19	46	100.0	30	2	US-09-843-221A-151
20	46	100.0	30	2	US-09-843-221A-153
21	46	100.0	30	2	US-09-843-221A-154
22	46	100.0	30	2	US-09-843-221A-155
23	46	100.0	30	2	US-09-843-221A-156
24	46	100.0	30	2	US-09-843-221A-157
25	46	100.0	31	2	US-09-843-221A-78
26	46	100.0	32	1	US-08-449-500-56
27	46	100.0	32	1	US-08-449-317A-56

28	46	100.0	32	1	US-08-477-022-56	Sequence 56, Appl
29	46	100.0	32	1	US-08-449-447-56	Sequence 56, Appl
30	46	100.0	32	1	US-08-184-328-56	Sequence 56, Appl
31	46	100.0	32	1	US-08-521-097-56	Sequence 56, Appl
32	46	100.0	32	2	US-08-903-124-56	Sequence 56, Appl
33	46	100.0	33	1	US-08-449-500-55	Sequence 55, Appl
34	46	100.0	33	1	US-08-449-500-63	Sequence 55, Appl
35	46	100.0	33	1	US-08-449-317A-55	Sequence 55, Appl
36	46	100.0	33	1	US-08-449-317A-63	Sequence 55, Appl
37	46	100.0	33	1	US-08-477-022-55	Sequence 55, Appl
38	46	100.0	33	1	US-08-477-022-63	Sequence 55, Appl
39	46	100.0	33	1	US-08-449-447-55	Sequence 55, Appl
40	46	100.0	33	1	US-08-449-447-63	Sequence 55, Appl
41	46	100.0	33	1	US-08-184-328-55	Sequence 55, Appl
42	46	100.0	33	1	US-08-184-328-63	Sequence 55, Appl
43	46	100.0	33	1	US-08-521-097-55	Sequence 55, Appl
44	46	100.0	33	1	US-08-521-097-63	Sequence 55, Appl
45	46	100.0	33	2	US-09-843-221A-67	Sequence 67, Appl

ALIGNMENTS

RESULT 1
US-09-421-379-8
; Sequence 8, Application US/09421379
; Patent No. 6495662
; GENERAL INFORMATION:
; APPLICANT: Gardella, Thomas J.
; APPLICANT: Kronenberg, Henry
; APPLICANT: Potts, John T.
; APPLICANT: Juppner, Harald
; TITLE OF INVENTION: Bioactive Peptides and Peptide Derivatives of Parathyroid Hormone (PTH) and Parathyroid
; TITLE OF INVENTION: Hormone-Related Peptide (PTHrP)
; FILE REFERENCE: 0609.4570001
; CURRENT APPLICATION NUMBER: US/09/421.379
; EARLIER FILING DATE: 1999-10-20
; EARLIER APPLICATION NUMBER: U.S. 60/105,530
; EARLIER FILING DATE: 1998-10-22
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: Patent in Ver. 2.0
; SEQ ID NO 8
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: peptide
US-09-421-379-8

Query Match 100.0%; Score 46; DB 2; Length 9;
Best Local Similarity 100.0%; Pred. No. 4.6e+05; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0;

Oy 1 AVSEHQQLH 9
| | | | | | | | |
Db 1 AVSEHQQLH 9

RESULT 2
US-08-903-124-87
; Sequence 87, Application US/08903124A
; Patent No. 6849710
; GENERAL INFORMATION:
; APPLICANT: Arzeno, Humberto
; TITLE OF INVENTION: Method for the Synthesis of Analogs of Parathyroid
; TITLE OF INVENTION: Hormone and Parathyroid Hormone Related Peptide
; FILE REFERENCE: Sequence ID for 08/903,124
; Patent No. 6849710
; CURRENT APPLICATION NUMBER: US/08/903,124A
; CURRENT FILING DATE: 1997-07-30
; EARLIER APPLICATION NUMBER: 60/023,322

1 ; EARLIER FILING DATE: 1996-07-30
2 ; NUMBER OF SEQ ID NOS: 91
3 ; SOFTWARE: PatentIn Ver. 2.1
4 ; SEQ ID NO 87
5 ; LENGTH: 12
6 ; TYPE: PRT
7 ; ORGANISM: Homo sapiens
8 ;
9 US-08-903-124-87

Query Match 100.0%; Score 46; DB 2; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

RESULT 3

US-09-421-379-4

1 ; Sequence 4, Application US/09421379

2 ; Patent No. 6495662

3 ; GENERAL INFORMATION:

4 ; APPLICANT: Gardella, Thomas J.

5 ; APPLICANT: Kronenberg, Henry

6 ; APPLICANT: Potts, John T.

7 ; APPLICANT: Juppner, Harald

8 ; TITLE OF INVENTION: Bioactive Peptides and Peptide Derivatives of

9 ; TITLE OF INVENTION: Parathyroid Hormone (PTH) and Parathyroid

10 ; TITLE OF INVENTION: Hormone-Related Peptide (PTHrP)

11 ; FILE REFERENCE: 0609 4570001

12 ; CURRENT APPLICATION NUMBER: US/09/421,379

13 ; CURRENT FILING DATE: 1999-10-20

14 ; EARLIER APPLICATION NUMBER: U.S. 60/105,530

15 ; EARLIER FILING DATE: 1998-10-22

16 ; NUMBER OF SEQ ID NOS: 13

17 ; SOFTWARE: PatentIn Ver. 2.0

18 ; SEQ ID NO 4

19 ; LENGTH: 14

20 ; TYPE: PRT

21 ; ORGANISM: Artificial Sequence

22 ; FEATURE:

23 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic

24 ; OTHER INFORMATION: peptide

25 ;
26 US-09-421-379-4

Query Match 100.0%; Score 46; DB 2; Length 14;
Best Local Similarity 100.0%; Pred. No. 0.027;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

RESULT 4

5460978-4

1 ; Patent No. 5460978

2 ; APPLICANT: MARTIN, THOMAS J.; MOSELEY, JANE M.; KEMP,

3 ; BRUCE E.; WETTENHALL, RICHARD E.H.

4 ; TITLE OF INVENTION: PROTEIN ACTIVE IN HUMORAL

5 ; HYPERCALCAEMIA OF MALIGNANCY-PTHrP

6 ; NUMBER OF SEQUENCES: 4

7 ; CURRENT APPLICATION DATA:

8 ; APPLICATION NUMBER: US/07/715,280

9 ; FILING DATE: 14-JUN-1991

10 ; PRIOR APPLICATION DATA:

11 ; APPLICATION NUMBER: 199,235

12 ; FILING DATE: 09-MAY-1988

13 ; APPLICATION NUMBER:

14 ; FILING DATE:

15 ; SEQ ID NO:4

16 ; LENGTH: 16

Query Match 100.0%; Score 46; DB 2; Length 29;
Best Local Similarity 100.0%; Pred. No. 0.057;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

5460978-4

Query Match 100.0%; Score 46; DB 6; Length 16;
Best Local Similarity 100.0%; Pred. No. 0.031;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

RESULT 5

5217896-1

1 ; Patent No. 5217896

2 ; APPLICANT: KRAMER, STEVEN P.; VALENZUELA, DAVID M.; REYNOLDS

3 ; JR., FREDERICK H.; SORVILLO, JOHN M.

4 ; TITLE OF INVENTION: MONOCLONAL ANTIBODIES RECOGNIZING

5 ; PARATHYROID HORMONE-LIKE PROTEIN

6 ; NUMBER OF SEQUENCES: 8

7 ; CURRENT APPLICATION DATA:

8 ; APPLICATION NUMBER: US/07/292,263

9 ; FILING DATE: 30-DEC-1988

10 ; SEQ ID NO:1

11 ; LENGTH: 19

12 ;
13 5217896-1

Query Match 100.0%; Score 46; DB 6; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.037;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 2 AVSEHQLLH 10

RESULT 6

US-09-843-221A-152

1 ; Sequence 152, Application US/09843221A

2 ; Patent No. 6756480

3 ; GENERAL INFORMATION:

4 ; APPLICANT: KOSTENUK, PAUL

5 ; APPLICANT: LIU, CHUAN-FA

6 ; APPLICANT: LACEY, DAVID LEE

7 ; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

8 ; TITLE OF INVENTION: RELATED PROTEIN

9 ; FILE REFERENCE: A-665B

10 ; CURRENT APPLICATION NUMBER: US/09/843,221A

11 ; CURRENT FILING DATE: 2001-04-26

12 ; PRIOR APPLICATION NUMBER: 60/266,673

13 ; PRIOR FILING DATE: 2001-02-06

14 ; PRIOR APPLICATION NUMBER: 60/214,860

15 ; PRIOR FILING DATE: 2000-06-28

16 ; PRIOR APPLICATION NUMBER: 60/200,053

17 ; PRIOR FILING DATE: 2000-04-27

18 ; NUMBER OF SEQ ID NOS: 170

19 ; SOFTWARE: PatentIn version 3.1

20 ; SEQ ID NO 152

21 ; LENGTH: 29

22 ; TYPE: PRT

23 ; ORGANISM: Artificial Sequence

24 ; FEATURE:

25 ; OTHER INFORMATION: modified human PTHrP

26 ;
27 US-09-843-221A-152

```
RESULT 7
US-09-843-221A-76
; Sequence 76, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 76
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-843-221A-76

Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLH 9
      |||||
Db      1 AVSEHQLLH 9

RESULT 8
US-09-843-221A-79
; Sequence 79, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 79
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (12)..(12)
; OTHER INFORMATION: D amino acid
US-09-843-221A-79

Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLH 9
      |||||
Db      1 AVSEHQLLH 9

RESULT 9
US-09-843-221A-134
; Sequence 134, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 134
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-134

Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLH 9
      |||||
Db      1 AVSEHQLLH 9

RESULT 10
US-09-843-221A-135
; Sequence 135, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 135
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-135

Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLH 9
      |||||
Db      1 AVSEHQLLH 9
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Db      1 AVSEHQLLH 9
      |||||
RESULT 9
US-09-843-221A-134
; Sequence 134, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 134
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-134

Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLH 9
      |||||
Db      1 AVSEHQLLH 9

RESULT 10
US-09-843-221A-135
; Sequence 135, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 135
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-135

Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 AVSEHQLLH 9
      |||||
Db      1 AVSEHQLLH 9
```

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
| | | | | | | | | |
Db 1 AVSEHQLLH 9

RESULT 11

US-09-843-221A-136
; Sequence 136, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 136
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-136

Query Match 100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
| | | | | | | | | |
Db 1 AVSEHQLLH 9

RESULT 12

US-09-843-221A-137
; Sequence 137, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 137
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-137

Query Match 100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
| | | | | | | | | |
Db 1 AVSEHQLLH 9

RESULT 13

US-09-843-221A-138
; Sequence 138, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 138
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-138

Query Match 100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
| | | | | | | | | |
Db 1 AVSEHQLLH 9

RESULT 14

US-09-843-221A-144
; Sequence 144, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 144
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-144

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; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-144

Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
   |||||
Db 1 AVSEHQQLLH 9

RESULT 15
US-09-843-221A-145
; Sequence 145, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ-ID NOS: 170
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 145
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-145
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Query Match      100.0%; Score 46; DB 2; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.059;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
   |||||
Db 1 AVSEHQQLLH 9
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Search completed: December 2, 2005, 22:38:21
Job time : 7.11798 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:03:56 ; Search time 27.6404 Seconds
(without alignment)
158.962 Million cell updates/sec

Title: US-10-691-125-3
Perfect score: 55
Sequence: 1 FLHLLIAEIH 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A Geneseq_21.*

- 1: geneseqp1980s.*
- 2: geneseqp1990s.*
- 3: geneseqp2000s.*
- 4: geneseqp2001s.*
- 5: geneseqp2002s.*
- 6: geneseqp2003as.*
- 7: geneseqp2003bs.*
- 8: geneseqp2004s.*
- 9: geneseqp2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	55	100.0	10	ADW99592	Adw99592 Human par
2	55	100.0	17	ADT94444	Adt94444 Peptide #
3	55	100.0	20	ADF77401	Adf77401 Parathyro
4	55	100.0	21	AAR27973	Aar27973 (Tyr34) h
5	55	100.0	21	AAR27972	Aar27972 Truncated
6	55	100.0	21	ADT94440	Adt94440 Peptide #
7	55	100.0	24	AAR27065	Aar27065 hHCP[11-3
8	55	100.0	24	AAR27066	Aar27066 [Tyr34]hH
9	55	100.0	25	AAR27073	Aar27073 [Leu11, D
10	55	100.0	25	AAR27064	Aar27064 hHCP[10-3
11	55	100.0	25	AAR27979	Aar27979 (D-Trp12)
12	55	100.0	26	AAR84305	Aar84305 Parathyro
13	55	100.0	27	AAR21497	Aar21497 Desamino[
14	55	100.0	27	AAR21494	Aar21494 Desamino
15	55	100.0	27	AAR21493	Aar21493 Desamino[
16	55	100.0	27	AAR21496	Aar21496 Desamino
17	55	100.0	27	AAR21483	Aar21483 Biotinyla
18	55	100.0	27	AAR21486	Aar21486 Biotinyla
19	55	100.0	27	AAR21484	Aar21484 D-Trp-[Iy
20	55	100.0	27	AAR21487	Aar21487 Biotinyla
21	55	100.0	27	AAR84303	Aar84303 Parathyro
22	55	100.0	27	AAR87030	Aar87030 [desamino
23	55	100.0	27	AAU73085	AAU73085 Parathyro
24	55	100.0	27	AAU73086	AAU73086 Parathyro

25	55	100.0	27	8	ADQ75401	Adq75401 PTH/PTHrP
26	55	100.0	27	8	ADQ75400	Adq75400 PTH/PTHrP
27	55	100.0	28	2	AAR14728	Aar14728 Human par
28	55	100.0	28	2	AAR21490	Aar21490 Desamino
29	55	100.0	28	2	AAR21495	Aar21495 Desamino
30	55	100.0	28	2	AAR21488	Aar21488 Desamino[
31	55	100.0	28	2	AAR21491	Aar21491 Desamino
32	55	100.0	28	2	AAR21489	Aar21489 Desamino
33	55	100.0	28	2	AAR21492	Aar21492 Desamino
34	55	100.0	28	2	AAR27069	Aar27069 [Leu11]hH
35	55	100.0	28	2	AAR27072	Aar27072 [Leu11, D
36	55	100.0	28	2	AAR27974	Aar27974 [Leu23] h
37	55	100.0	28	2	AAR27976	Aar27976 [Leu11] h
38	55	100.0	28	2	AAR21485	Aar21485 Biotinyla
39	55	100.0	28	2	AAR21481	Aar21481 Biotinyla
40	55	100.0	28	2	AAR21479	Aar21479 [Lys11/13
41	55	100.0	28	2	AAR21480	Aar21480 Biotinyla
42	55	100.0	28	2	AAR21482	Aar21482 D-Trp-[Iy
43	55	100.0	28	2	AAR21478	Aar21478 [Leu11, D
44	55	100.0	28	2	AAW15832	AAW15832 N-alpha-3
45	55	100.0	28	2	AAW15820	AAW15820 [Trp(10)]

ALIGNMENTS

RESULT 1
ADW99592
ID ADW99592 standard; peptide; 10 AA.
XX
AC ADW99592;
XX
DT 21-APR-2005 (first entry)
XX
DE Human parathyroid hormone-related peptide PTR-2.
XX
KW recombinant protein; cytostatic; vaccine; immune stimulation;
KW immunostimulatory; parathyroid hormone related peptide; tumor;
KW metastasis.
XX
OS Homo sapiens.
XX
PN US2005033023-A1.
XX
PD 10-FEB-2005.
XX
PF 21-OCT-2003; 2003US-00691125.
XX
PR 21-OCT-2002; 2002US-0420165P.
XX
PA (CORR/) CORREALE P.
PA (CUI/) CUI M G.
XX (FRAN/) FRANCINI G.
PI Correale P, Cusi MG, Francini G;
XX WPI; 2005-151693/16.
XX
PT Novel isolated immunostimulatory parathyroid hormone related peptide (PTH
-rP), useful for immunizing and treating subjects against metastases and
tumors.
XX
PS Claim 2; SEQ ID NO 3; 35pp; English.
XX
CC The invention relates to an isolated immunostimulatory parathyroid
hormone related peptide (PTH-rP) (I) comprising a fragment of the amino
acid sequence of a fully defined sequence (S1) of 141 amino acids as
given in the specification, or its functional variant comprising one or
more amino acid additions, substitution or deletions. (I) is useful for
generating T cells active against PTH-rP expressing tumors and
metastasis, which involves stimulating T cells in the presence of antigen
presenting cells that have been exposed to (I). The antigen presenting
cells have been infected with virosones containing PTH-rP plasmids,

CC virosomes encapsulating (I) or virosomes comprising (I) crosslinked to
 CC its surface. (I) is useful for generating a T cell response specific for
 CC PTH-rp, which involves immunizing a subject with (I). The protein, an
 CC epitope from it, DNA encoding it, vectors and host cells are useful for
 CC inducing an immune response against PTH-rp expressing tumors and
 CC metastasis, by immunization. They are useful for treating PTH-rp
 CC expressing tumors and metastasis, immunizing a subject against metastasis
 CC and tumors or for preventing the occurrence or recurrence of PTH-rp
 CC expressing tumors and metastasis. This sequence corresponds to a peptide
 CC from the human PTH-rp protein.

XX SQ Sequence 10 AA;

Query Match 100.0%; Score 55; DB 9; Length 10;
 Best Local Similarity 100.0%; Pred. No. 0.0079;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
 |||||
 Db 1 FLHLLIAEIH 10

RESULT 2

ADT94444
 ID ADT94444 standard; peptide; 17 AA.

XX AC ADT94444;

XX DT 27-JAN-2005 (first entry)

XX DE Peptide #7 used to construct a hair growth modulating peptide.

XX KW Human; stimulate hair growth; inhibit hair growth;

KW parathyroid hormone-related protein; PTHrp; parathyroid hormone; PTH;
 KW Type 1 PTH/PTHrp receptor; PTHrR; inverse agonist; agonist;
 KW topical application; skin; hair loss; psoriasis; unwanted hair;
 KW antipsoriatic; depilatory; mutant; mutein.

XX OS Homo sapiens.

OS Synthetic.

XX FH Key Location/Qualifiers

FT Modified-site 17

FT /note= "Modified by NH2"

XX US2004220094-A1.

XX PD 04-NOV-2004.

XX PF 01-MAY-2003; 2003US-00428377.

XX PR 01-MAY-2003; 2003US-00428377.

XX PA (SKIN/) SKINNER K K.

XX PI Skinner KK;

XX DR WPI; 2004-794470/78.

XX PT New parathyroid hormone receptor inverse agonist and agonist peptides
 PT that stimulate or inhibit hair growth, useful for treating hair loss,
 PT psoriasis, or unwanted hair.

XX PS Disclosure; SEQ ID NO 14; 25pp; English.

XX CC The invention relates to peptides that stimulate or inhibit hair growth.
 CC The novel peptides are (a) inverse agonists of parathyroid hormone-
 CC related protein (PTHrp) and parathyroid hormone (PTH) activity on the
 CC Type 1 PTH/PTHrp receptor (PTHrR), or (b) agonists of PTHrR and PTH
 CC activity on PTHrR. Also disclosed are compositions comprising the
 CC peptides, methods of preparing the peptides, methods for their use, and
 CC methods of assaying them for inverse agonist and agonist activities. The
 CC compositions are formulated for topical application to areas of the skin.

CC Administration can also be transdermal or systemic. The peptides are
 CC useful for the treatment of hair loss, psoriasis, or unwanted hair. This
 CC sequence represents a peptide used to construct a peptide of the
 CC invention.

XX SQ Sequence 17 AA;

Query Match 100.0%; Score 55; DB 8; Length 17;
 Best Local Similarity 100.0%; Pred. No. 0.014;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
 |||||
 Db 6 FLHLLIAEIH 15

RESULT 3

ADF77401

ID ADF77401 standard; peptide; 20 AA.

XX AC ADF77401;

XX DT 26-FEB-2004 (first entry)

XX DE Parathyroid hormone amino acid sequence hPTHrP(15-34) SEQ ID NO:22.

KW vaginal atrophy; parathyroid hormone; PTH; gynaecological;
 KW antiinflammatory; antibacterial; antipruritic; antiulcer; haemostatic;
 KW human.

XX OS Synthetic.

OS Homo sapiens.

XX PN WO2003099849-A2.

XX PD 04-DEC-2003.

XX PF 23-MAY-2003; 2003WO-US016478.

XX PR 23-MAY-2002; 2002US-0382905P.

XX PA (HOLI/) HOLICK M.

XX PI Holick M;

XX DR WPI; 2004-062062/06.

XX PT Use of parathyroid hormone peptide and peptide analogs for the treatment
 PT of vaginal atrophy and associated symptoms e.g. ulcer, inflammation.

XX PS Disclosure; SEQ ID NO 22; 38pp; English.

XX CC The present invention describes a method for the treatment of vaginal
 CC atrophy which involves the administration of parathyroid hormone (PTH)
 CC peptide (I) or PTH analogue (II). (I) is preferably human PTH (hPTH) (1-
 CC 34 or 7-34) or human PTH related protein (hPTHrP) (1-34 or 7-34). (II) is
 CC at least five amino acids long and has at least 10 % sequence identity
 CC with that of the N-terminal region of hPTH or hPTHrP. Also described: (1)
 CC treatment of vaginal atrophy involving administration of a hPTH/PTHrP
 CC receptor antagonist (A1) or a hPTH-2 receptor antagonist (A2); and (2) a
 CC kit comprising (I) or (II) and an applicator. PTH has gynaecological,
 CC antiinflammatory, antibacterial, antipruritic, antiulcer and haemostatic
 CC activities. (I) and (II) can be used for treating vaginal atrophy and
 CC associated symptoms including vaginal dryness, discomfort, itching, The
 CC bacterial infections, inflammation, ulcer, discharge and bleeding. The
 CC present sequence is given in the exemplification of the present
 CC invention.

XX SQ Sequence 20 AA;

Query Match 100.0%; Score 55; DB 8; Length 20;
 Best Local Similarity 100.0%; Pred. No. 0.017;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

QY      1 FLHLLIAEIH 10
DB      9 FLHLLIAEIH 18

RESULT 4
AAR27973
ID      AAR27973 standard; protein; 21 AA.
AC      AAR27973;
XX      25-MAR-2003 (revised)
DT      26-NOV-1992 (first entry)
XX      (Tyr34) hHCF (14-34) generic analogue.
XX      humoral hypercalcaemic factor; hypercalcaemia; osteoporosis;
KW      hyperparathyroidism; tumour overproduction; assay; hypercalcaemic crisis;
KW      renal failure; hypertension; inflammation; allergy;
KW      hyperactive lymphocytes.
XX      Synthetic.
OS      US5114843-A.
XX      19-MAY-1992.
XX      25-FEB-1991; 91US-00662340.
XX      09-MAY-1988; 88US-00191513.
XX      21-APR-1989; 89US-00341530.
XX      (MERI ) MERCK & CO INC.
XX      Rosenblatt M, McKee RL, Caulfield MP, Nutt RF;
XX      WPI; 1992-192175/23.
XX      Peptide analogues of humoral hypercalcaemia factor - useful for treating
PT      hypercalcaemia or osteoporosis, hyperparathyroidism or disease associated
PT      with tumour over prodn. of hHCF.
XX      Disclosure; Col 2; 5pp; English.
XX      This sequence represents one of several novel peptide analogues of
CC      humoral hypercalcaemic factor (hHCF), as found in the disclosure. The
CC      peptides are antagonists of hHCF, and may be used to treat osteoporosis,
CC      hypercalcaemia, hyperparathyroidism, eg. expressed as a hypercalcaemic
CC      crisis, renal failure, or hypertension, and disease states produced by a
CC      tumour or other cell overproducing a peptide hormone-like molecule eg.
CC      the hHCF of malignancy. They may also be used to treat immune diseases
CC      involving inflammation, an allergic response or hyperactive lymphocytes.
CC      A further use may be in an assay of natural hHCF levels. The peptides
CC      have high binding affinity for their receptors, while not stimulating the
CC      production of second messenger molecules with concurrent physiological
CC      response. NOTE: In the specification 11e14 is quoted as being substituted
CC      by other amino acids, however Ile occurs only at position 15 in the full
CC      sequence disclosed for hHCF, and this is the position at which the
CC      substitutions have been made in the sequence given. (Updated on 25-MAR-
CC      2003 to correct PF field.)
XX      Query Match      100.0%; Score 55; DB 2; Length 21;
XX      Best Local Similarity 100.0%; Pred. No. 0.018;
XX      Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 FLHLLIAEIH 10
DB      10 FLHLLIAEIH 19

RESULT 6
ADT94440
ID      ADT94440 standard; peptide; 21 AA.
XX      AC      ADT94440;
XX      27-JAN-2005 (first entry)

```

XX Peptide #4 used to construct a hair growth modulating peptide.

DE Human; stimulate hair growth; inhibit hair growth;

XX parathyroid hormone-related protein; PTHrP; parathyroid hormone; PTH;

KW Type 1 PTH/PTHrP receptor; PTHrP; inverse agonist; agonist;

KW topical application; skin; hair loss; psoriasis; unwanted hair;

KW antipsoriatic; depilatory; mutant; mutein.

XX OS Homo sapiens.

OS Synthetic.

XX US2004220094-A1.

XX 04-NOV-2004.

XX 01-MAY-2003; 2003US-00428377.

XX 01-MAY-2003; 2003US-00428377.

XX (SKIN/) SKINNER K K.

XX Skinner KK;

XX WPI; 2004-794470/78.

XX New parathyroid hormone receptor inverse agonist and agonist peptides

PT that stimulate or inhibit hair growth, useful for treating hair loss,

PT psoriasis, or unwanted hair.

XX Claim 7; SEQ ID NO 10; 25pp; English.

XX The invention relates to peptides that stimulate or inhibit hair growth.

CC The novel peptides are (a) inverse agonists of parathyroid hormone-

CC related protein (PTHrP) and parathyroid hormone (PTH) activity on the

CC Type 1 PTH/PTHrP receptor (PTHrR), or (b) agonists of PTHrP and PTH

CC activity on PTHrR. Also disclosed are compositions comprising the

CC peptides, methods of preparing the peptides, methods for their use, and

CC methods of assaying them for inverse agonist and agonist activities. The

CC compositions are formulated for topical application to areas of the skin.

CC Administration can also be transdermal or systemic. The peptides are

CC useful for the treatment of hair loss, psoriasis, or unwanted hair. This

CC sequence represents a peptide used to construct a peptide of the

CC invention.

XX SQ Sequence 21 AA;

Query Match 100.0%; Score 55; DB 8; Length 21;

Best Local Similarity 100.0%; Pred. No. 0.018;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10

Db 10 FLHLLIAEIH 19

RESULT 7

AAR27065

ID AAR27065 standard; peptide; 24 AA.

XX AC AAR27065;

XX 03-MAR-1993 (first entry)

DT hHCF[11-34] contg. lactam bridge.

DE Truncated; mutants; human; humoral hypercalcaemic factor; antagonists;

XX osteoporosis; parathyroidism; inflammation; immune; stable.

OS Homo sapiens.

XX Key Location/Qualifiers

FH Modified-site 3

FT /note= "site of lactam bridge to Asp 7"

FT Modified-site 7

FT /note= "site of lactam bridge to Lys 3"

FT Misc-difference 24

FT /note= "Ala -> Tyr mutation"

FT US5149779-A.

PN 22-SEP-1992.

XX 26-JUL-1990; 90US-00557828.

XX 26-JUL-1990; 90US-00557828.

XX 26-JUL-1990; 90US-00557828.

PR 26-JUL-1990; 90US-00557828.

FT Modified-site 7

FT /note= "site of lactam bridge to Asp 7"

FT /note= "site of lactam bridge to Lys 3"

XX US5149779-A.

PN 22-SEP-1992.

XX 26-JUL-1990; 90US-00557828.

XX 26-JUL-1990; 90US-00557828.

XX (MERI) MERCK & CO INC.

XX Chorev M, Roubini E;

XX WPI; 1992-340294/41.

XX New peptide derivs. are humoral hypercalcaemia factor antagonists -

PT useful for treating osteoporosis, hypercalcaemia, parathyroidism, immune

PT disorders, inflammation, etc.

XX Disclosure; Page 3; 6pp; English.

XX The peptide shows a truncated version of the first 34 N-terminal residues

CC of human humoral hypercalcaemic factor, hHCF[11-34]. A lactam bridge is

CC present between Lys3 and Asp7. The analogue of hHCF is an HCF antagonist

CC useful for treating e.g. osteoporosis, hypercalcaemia; parathyroidism,

CC immune disorders or inflammation. The lactam bridge confers rigidity to

CC that region of the peptide and enhances the helical nature and metabolic

CC stability of the peptide analogue. See also AAR27063-73

XX SQ Sequence 24 AA;

Query Match 100.0%; Score 55; DB 2; Length 24;

Best Local Similarity 100.0%; Pred. No. 0.02;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10

Db 13 FLHLLIAEIH 22

RESULT 8

AAR27066

ID AAR27066 standard; peptide; 24 AA.

XX AC AAR27066;

XX 03-MAR-1993 (first entry)

DT [Tyr34]hHCF[11-34] contg. lactam bridge.

DE Truncated; mutants; human; humoral hypercalcaemic factor; antagonists;

XX osteoporosis; parathyroidism; inflammation; immune; stable.

OS Homo sapiens.

XX Key Location/Qualifiers

FH Modified-site 3

FT /note= "site of lactam bridge to Asp 7"

FT Modified-site 7

FT /note= "site of lactam bridge to Lys 3"

FT Misc-difference 24

FT /note= "Ala -> Tyr mutation"

FT US5149779-A.

PN 22-SEP-1992.

XX 26-JUL-1990; 90US-00557828.

XX 26-JUL-1990; 90US-00557828.

PR 26-JUL-1990; 90US-00557828.

```
XX PA (MERI ) MERCK & CO INC.
XX PT
XX PI Chorev M, Roubini E;
XX DR WPI; 1992-340294/41.
XX
XX PT New peptide derivs. are humoral hypercalcaemia factor antagonists -
XX PT useful for treating osteoporosis, hypercalcaemia, parathyroidism, immune
XX PT disorders, inflammation, etc.
XX PS Disclosure; Page 3; 6pp; English.
XX
XX CC The peptide shows a truncated version of the first 34 N-terminal residues
XX CC of human humoral hypercalcaemic factor having an Ala->Tyr mutation at
XX CC position 24, i.e. [Lys34]hHCF[11-34]. A lactam bridge is present between
XX CC Lys3 and Asp7. The analogue of hHCF is an HCF antagonist useful for
XX CC treating e.g. osteoporosis, hypercalcaemia; parathyroidism, immune
XX CC disorders or inflammation. The lactam bridge confers rigidity to that
XX CC region of the peptide and enhances the helical nature and metabolic
XX CC stability of the peptide analogue. See also AAR27063-73
XX SQ Sequence 24 AA;
XX
XX Query Match 100.0%; Score 55; DB 2; Length 24;
XX Best Local Similarity 100.0%; Pred. No. 0.02;
XX Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX Qy 1 FLHLLIAEIH 10
XX Db 13 FLHLLIAEIH 22
XX
XX RESULT 9
XX AAR27073
XX ID AAR27073 standard; peptide; 25 AA.
XX AC AAR27073;
XX DT 03-MAR-1993 (first entry)
XX DE [Leu11, D-Trp12]hHCF[10-34] contg. lactam bridge.
XX KW Truncated; mutants; human; humoral hypercalcaemic factor; antagonists;
XX KW osteoporosis; parathyroidism; inflammation; immune; stable.
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
XX FT Modified-site 1 /note= "CH3CO deriv."
XX FT Misc-difference 2 /note= "Lys -> Leu mutation"
XX FT Misc-difference 3 /note= "Gly -> D-Trp mutation"
XX FT Modified-site 4 /note= "site of lactam bridge to Asp 8"
XX FT Modified-site 8 /note= "site of lactam bridge to Lys 4"
XX
XX US5149779-A.
XX PN
XX PD 22-SEP-1992.
XX PF 26-JUL-1990; 90US-00557828.
XX PR 26-JUL-1990; 90US-00557828.
XX PA (MERI ) MERCK & CO INC.
XX PI Chorev M, Roubini E;
XX PS WPI; 1992-340294/41.
XX
XX CC The peptide shows a truncated version of the first 34 N-terminal residues
XX CC of human humoral hypercalcaemic factor having an Lys->Leu mutation at
XX CC position 2 and a Gly->D-Trp mutation at position 3 i.e. [Leu11, D-
XX CC Trp12]hHCF[10-34]. A lactam bridge is present between Lys4 and Asp8. The
XX CC peptide fragment contains a region specific for binding to its cell
XX CC surface receptor but does not stimulate the prodn. of second messenger
XX CC molecules once bound. The analogue of hHCF is an HCF antagonist useful
XX CC for treating e.g. osteoporosis, hypercalcaemia, parathyroidism, immune
XX CC disorders or inflammation. The lactam bridge confers rigidity to that
XX CC region of the peptide and enhances the helical nature and metabolic
XX CC stability of the peptide analogue. See also AAR27063-72
XX SQ Sequence 25 AA;
XX
XX Query Match 100.0%; Score 55; DB 2; Length 25;
XX Best Local Similarity 100.0%; Pred. No. 0.021;
XX Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX Qy 1 FLHLLIAEIH 10
XX Db 14 FLHLLIAEIH 23
XX
XX RESULT 10
XX AAR27064
XX ID AAR27064 standard; peptide; 25 AA.
XX AC AAR27064;
XX DT 03-MAR-1993 (first entry)
XX DE hHCF[10-34] contg. lactam bridge.
XX KW Truncated; mutants; human; humoral hypercalcaemic factor; antagonists;
XX KW osteoporosis; parathyroidism; inflammation; immune; stable.
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
XX FT Modified-site 4 /note= "site of lactam bridge to Asp 8"
XX FT Modified-site 8 /note= "site of lactam bridge to Lys 4"
XX
XX US5149779-A.
XX PN
XX PD 22-SEP-1992.
XX PF 26-JUL-1990; 90US-00557828.
XX PR 26-JUL-1990; 90US-00557828.
XX PA (MERI ) MERCK & CO INC.
XX PI Chorev M, Roubini E;
XX PS WPI; 1992-340294/41.
XX
XX CC New peptide derivs. are humoral hypercalcaemia factor antagonists -
XX CC useful for treating osteoporosis, hypercalcaemia, parathyroidism, immune
XX CC disorders, inflammation, etc.
XX PS Disclosure; Page 3; 6pp; English.
XX
XX CC The peptide shows a truncated version of the first 34 N-terminal residues
XX CC of human humoral hypercalcaemic factor having an Ala->Tyr mutation at
XX CC position 24, i.e. [Lys34]hHCF[11-34]. A lactam bridge is present between
XX CC Lys3 and Asp7. The analogue of hHCF is an HCF antagonist useful for
XX CC treating e.g. osteoporosis, hypercalcaemia; parathyroidism, immune
XX CC disorders or inflammation. The lactam bridge confers rigidity to that
XX CC region of the peptide and enhances the helical nature and metabolic
XX CC stability of the peptide analogue. See also AAR27063-73
XX SQ Sequence 24 AA;
XX
XX Query Match 100.0%; Score 55; DB 2; Length 24;
XX Best Local Similarity 100.0%; Pred. No. 0.02;
XX Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX Qy 1 FLHLLIAEIH 10
XX Db 13 FLHLLIAEIH 22
XX
XX RESULT 9
XX AAR27073
XX ID AAR27073 standard; peptide; 25 AA.
XX AC AAR27073;
XX DT 03-MAR-1993 (first entry)
XX DE [Leu11, D-Trp12]hHCF[10-34] contg. lactam bridge.
XX KW Truncated; mutants; human; humoral hypercalcaemic factor; antagonists;
XX KW osteoporosis; parathyroidism; inflammation; immune; stable.
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
XX FT Modified-site 1 /note= "CH3CO deriv."
XX FT Misc-difference 2 /note= "Lys -> Leu mutation"
XX FT Misc-difference 3 /note= "Gly -> D-Trp mutation"
XX FT Modified-site 4 /note= "site of lactam bridge to Asp 8"
XX FT Modified-site 8 /note= "site of lactam bridge to Lys 4"
XX
XX US5149779-A.
XX PN
XX PD 22-SEP-1992.
XX PF 26-JUL-1990; 90US-00557828.
XX PR 26-JUL-1990; 90US-00557828.
XX PA (MERI ) MERCK & CO INC.
XX PI Chorev M, Roubini E;
XX PS WPI; 1992-340294/41.
XX
XX CC The peptide shows a truncated version of the first 34 N-terminal residues
XX CC of human humoral hypercalcaemic factor, hHCF[10-34]. A lactam bridge is
```

CC present between Lys4 and Asp8. The analogue of hHCF is an HCF antagonist
 CC useful for treating e.g. osteoporosis, hypercalcaemia; parathyroidism,
 CC immune disorders or inflammation. The lactam bridge confers rigidity to
 CC that region of the peptide and enhances the helical nature and metabolic
 CC stability of the peptide analogue. See also AAR27063-73
 XX
 SQ Sequence 25 AA;

Query Match 100.0%; Score 55; DB 2; Length 25;
 Best Local Similarity 100.0%; Pred. No. 0.021;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
 |||||
 Db 14 FLHLLIAEIH 23

RESULT 11
 AAR27979
 ID AAR27979 standard; protein; 25 AA.

XX
 AC AAR27979;

DT 25-MAR-2003 (revised)
 DT 26-NOV-1992 (first entry)

DE (D-Trp12) hHCF (10-34) analogue.

XX humoral hypercalcaemic factor; hypercalcaemia; osteoporosis;
 KW hyperparathyroidism; tumour overproduction; assay; hypercalcaemic crisis;
 KW renal failure; hypertension; inflammation; allergy;
 KW hyperactive lymphocytes.

XX Synthetic.

Key Location/Qualifiers
 Modified-site 3 /note= "D-form"

XX US5114843-A.

XX 19-MAY-1992.

XX 25-FEB-1991; 91US-00662340.

XX 09-MAY-1988; 88US-00191513.

PR 21-APR-1989; 89US-00341530.

XX (MERI) MERCK & CO INC.

XX Rosenblatt M, McKee RL, Caulfield MP, Nutt RF;

XX WPI; 1992-192175/23.

XX Peptide analogues of humoral hypercalcaemia factor - useful for treating
 PT hypercalcaemia or osteoporosis, hyperparathyroidism or disease associated
 PT with tumour over prodn. of hHCF.

XX Claim 2; Col 8; 5pp; English.

XX This sequence represents one of several novel peptide analogues of
 CC humoral hypercalcaemic factor (hHCF), as found in the disclosure. The
 CC peptides are antagonists of hHCF, and may be used to treat osteoporosis,
 CC hypercalcaemia, hyperparathyroidism, eg. expressed as a hypercalcaemic
 CC crisis, renal failure, or hypertension, and disease states produced by a
 CC tumour or other cell overproducing a peptide hormone-like molecule eg.
 CC the hHCF of malignancy. They may also be used to treat immune diseases
 CC involving inflammation, an allergic response or hyperactive lymphocytes.
 CC A further use may be in an assay of natural hHCF levels. The peptides
 CC have high binding affinity for their receptors, while not stimulating the
 CC production of second messenger molecules with concurrent physiological
 CC response. NOTE: In the specification Ile14 is quoted as being substituted
 CC by other amino acids, however Ile occurs only at position 15 in the full

CC sequence disclosed for hHCF. (Updated on 25-MAR-2003 to correct PF
 CC field.)
 XX
 SQ Sequence 25 AA;

Query Match 100.0%; Score 55; DB 2; Length 25;
 Best Local Similarity 100.0%; Pred. No. 0.021;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
 |||||
 Db 14 FLHLLIAEIH 23

RESULT 12
 AAR84305

ID AAR84305 standard; peptide; 26 AA.

XX
 AC AAR84305;

DT 29-FEB-1996 (first entry)

DE Parathyroid hormone related protein antagonistic peptide.

XX Parathyroid hormone related protein; antagonist; PTH; osteoporosis;
 KW calcium; hypercalcaemia.

XX Homo sapiens.

XX Key Location/Qualifiers

FT Misc-difference 5 /note= "D form residue"

XX JP07165790-A.

XX 27-JUN-1995.

XX 30-SEP-1993; 93JP-00268311.

XX 30-SEP-1993; 93JP-00268311.

XX (TOFU) TONEN CORP.

XX WPI; 1995-261289/34.

XX New polypeptide(s) with antagonist activity towards parathyroid hormone
 PT related protein - useful for treatment of calcium metabolism
 PT abnormalities such as hypercalcaemia and osteoporosis.

XX Claim 3; Page 2; 5pp; Japanese.

XX AAR84303-R84305 are polypeptides which are antagonistic to parathyroid
 CC hormone related protein (PTHrP). The peptides may be used in the
 CC treatment of diseases such as hypercalcaemia and osteoporosis which are
 CC caused by abnormalities in calcium metabolism brought about by the action
 CC of PTHrP. The peptides are more effective and have higher antagonistic
 CC activity than conventional PTHrP antagonists

XX SQ Sequence 26 AA;

Query Match 100.0%; Score 55; DB 2; Length 26;
 Best Local Similarity 100.0%; Pred. No. 0.022;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
 |||||
 Db 16 FLHLLIAEIH 25

RESULT 13
 AAR21497

ID AAR21497 standard; protein; 27 AA.

XX

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AC AAR21497;
XX
XX
XX 05-JUN-1992 (first entry)
XX
XX Desamino[Leu11, D-Trp, Lys13 (epsilon amino-(N,N-diisobutyl or 3-phenyl
DE propanoyl))] hHCF (8-34)NH2.
XX
XX Humoral hypercalcaemic factor (HCF); antagonist; tumours; hypercalcaemia;
KW osteoporosis; hyperparathyroidism.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
FH Misc-difference 5
FT /note= "D-Trp"
FT Modified-site 6
FT /label= OTHER
FT /note= "OTHER= epsilon amino-N,N-diisobutyl or 3-phenyl
FT propanoyl."
XX
XX US5087562-A.
XX
XX 11-FEB-1992.
XX
XX 25-APR-1990; 90US-00514633.
XX
XX 25-APR-1990; 90US-00514633.
XX
XX (MERI ) MERCK & CO INC.
XX
XX Rosenblatt M, Roubini E, Chorev M, Nutt RF;
XX WPI; 1992-072190/09.
XX
XX New di:isobutyl or phenyl:propanoyl modified HHCf antagonist - useful in
PT treatment and diagnosis of e.g. tumours, hypercalcaemia, osteoporosis and
PT hyperparathyroidism.
XX
XX Disclosure; Page 1; 6pp; English.
XX
XX The peptide was synthesised by a solid phase method using a 4-methyl-
CC benzhydrylamine.HCl resin. Lys13 is modified in the epsilon amino gp. by
CC N,N-diisobutyl or 3-phenyl-propanoyl. The substn. of the epsilon-NH2 of
CC Lys13 was carried out by incorporation of N-alpha-Boc-Lys- (epsilon-Fmoc)-
CC OH in position 13 and epsilon-amino Fmoc deprotonation and modification
CC of the free epsilon-NH2 in Lys13. The peptide was cleaved from the resin,
CC extracted and purified. Note that the peptide is desamino i.e. there is
CC no amino gp. on the N- terminus. The peptides have high binding affinity
CC for HCF cell surface receptors while not stimulating the prodn. of second
CC messenger molecules. The peptide can be used for treating e.g.
CC osteoporosis, hypercalcaemia, hyperparathyroidism and related aspects
CC i.e. hypercalcaemic crisis, renal failure and hypertension tumours. The
CC peptide may be used to treat immune diseases in which the diseased state
CC is manifested by inflammation, an allergic response or hyperactive
CC lymphocytes. Fragments of the peptide contg. the receptor binding site
CC can be used as inhibitors or blocking agents. The peptides can also be
CC used as probes to detect and facilitate purification of parathyroid
CC hormone receptors, and in vitro to measure the concn. of naturally
CC occurring HCF. See also AAR21488-97 and AAR21478-87 (see US5087561)
XX
XX Sequence 27 AA;
SQ
Query Match 100.0%; Score 55; DB 2; Length 27;
Best Local Similarity 100.0%; Pred. NO. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHLLIAEIH 10
Db 16 FLHLLIAEIH 25

RESULT 14
AAR21494

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ID AAR21494 standard; protein; 27 AA.
XX
XX AAR21494;
XX
XX 05-JUN-1992 (first entry).
XX
XX Desamino [D-Trp, Lys13 (epsilon amino-(N,N-diisobutyl or 3-phenyl
DE propanoyl))] hHCF (8-34)NH2.
XX
XX Humoral hypercalcaemic factor (HCF); antagonist; tumours; hypercalcaemia;
KW osteoporosis; hyperparathyroidism.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
FH Misc-difference 5
FT /note= "D-Trp"
FT Modified-site 6
FT /label= OTHER
FT /note= "OTHER= epsilon amino-N,N-diisobutyl or 3-phenyl
FT propanoyl."
XX
XX US5087562-A.
XX
XX 11-FEB-1992.
XX
XX 25-APR-1990; 90US-00514633.
XX
XX 25-APR-1990; 90US-00514633.
XX
XX (MERI ) MERCK & CO INC.
XX
XX Rosenblatt M, Roubini E, Chorev M, Nutt RF;
XX WPI; 1992-072190/09.
XX
XX New di:isobutyl or phenyl:propanoyl modified HHCf antagonist - useful in
PT treatment and diagnosis of e.g. tumours, hypercalcaemia, osteoporosis and
PT hyperparathyroidism.
XX
XX Disclosure; Page 1; 6pp; English.
XX
XX The peptide was synthesised by a solid phase method using a 4-methyl-
CC benzhydrylamine.HCl resin. The substn. of the epsilon-NH2 of Lys13 was
CC carried out by incorporation of N-alpha-Boc-Lys- (epsilon-Fmoc)-OH in
CC position 13 and epsilon-amino Fmoc deprotonation and modification of the
CC free epsilon-NH2 in Lys13. The peptide was cleaved from the resin,
CC extracted and purified. Note that the peptide is desamino i.e. there is
CC no amino gp. on the N-terminus. The peptides have high binding affinity
CC for HCF cell surface receptors while not stimulating the prodn. of second
CC messenger molecules. The peptide can be used for treating e.g.
CC osteoporosis, hypercalcaemia, hyperparathyroidism and related aspects
CC i.e. hypercalcaemic crisis, renal failure and hypertension tumours. The
CC peptide may be used to treat immune diseases in which the diseased state
CC is manifested by inflammation, an allergic response or hyperactive
CC lymphocytes. Fragments of the peptide contg. the receptor binding site
CC can be used as inhibitors or blocking agents. The peptides can also be
CC used as probes to detect and facilitate purification of parathyroid
CC hormone receptor, and in vitro to measure the concn. of naturally
CC occurring HCF. See also AAR21488-97 and AAR21478-87 (see US5087561)
XX
XX Sequence 27 AA;
SQ
Query Match 100.0%; Score 55; DB 2; Length 27;
Best Local Similarity 100.0%; Pred. NO. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHLLIAEIH 10
Db 16 FLHLLIAEIH 25

RESULT 15

```

Qy 1 FLHLLIAEIH 10
 |||||
Db 16 FLHLLIAEIH 25

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:04:13 ; Search time 4.38202 Seconds
(without alignments)
219.572 Million cell updates/sec

Title: US-10-691-125-3
Perfect score: 55
Sequence: 1 FLHLLIAEIH 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues
Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:.*
1: pir1.*
2: pir2.*
3: pir3.*
4: pir4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	55	100.0	175	JN0103	parathyroid hormon
2	55	100.0	177	A30012	parathyroid hormon
3	55	100.0	177	PTHU2L	parathyroid hormon
4	55	100.0	177	JC4201	parathyroid hormon
5	55	100.0	209	PTHU3L	parathyroid hormon
6	45	81.8	2244	T08212	RNA-directed RNA p
7	39	70.9	1631	SAZQK1	major merozoite su
8	39	70.9	1639	S05603	major merozoite su
9	39	70.9	1640	A24594	probable major sur
10	38	69.1	315	H87447	conserved hypothet
11	38	69.1	426	S70396	zona pellucida gly
12	38	69.1	540	G86790	fibronectin-bindin
13	38	69.1	635	S61175	probable membrane
14	38	69.1	652	T03504	probable DNA topoi
15	38	69.1	668	E89783	hypothetical prote
16	38	69.1	1299	T42989	hypothetical prote
17	37	67.3	221	A70831	hypothetical prote
18	37	67.3	460	D96813	hypothetical prote
19	37	67.3	551	F95111	adherence and viru
20	37	67.3	560	D97980	fibronectinbindin
21	37	67.3	759	S76989	sensory transducti
22	37	67.3	1370	T19188	hypothetical prote
23	36	65.5	172	AC2548	hypothetical prote
24	36	65.5	393	G71536	hypothetical prote
25	36	65.5	447	A33504	glutamate dehydrog
26	36	65.5	447	DEECEN	glutamate dehydrog
27	36	65.5	447	AP0710	NADP-specific glut
28	36	65.5	447	AE0483	glutamate dehydrog
29	36	65.5	447	C90937	NADP-specific glut

30	36	65.5	447	2	G85785	NADP-specific glut
31	36	65.5	695	2	A87494	topoisomerase IV,
32	36	65.5	699	2	AC3594	DNA topoisomerase
33	36	65.5	712	2	AB2776	DNA gyrase subunit
34	36	65.5	712	2	H97555	DNA gyrase chain b
35	36	65.5	873	2	T12535	hypothetical prote
36	36	65.5	1175	2	H83437	hypothetical prote
37	36	65.5	1708	2	AE1866	WD-40 repeat prote
38	35	63.6	100	2	D71632	hypothetical prote
39	35	63.6	237	2	T50984	related to 26S pro
40	35	63.6	281	2	H82326	MSHA biogenesis pr
41	35	63.6	362	2	T05167	hypothetical prote
42	35	63.6	651	2	S47282	merozoite surface
43	35	63.6	684	2	S29683	DNA gyrase B, novo
44	35	63.6	956	2	H81654	conserved hypothet
45	35	63.6	1025	2	E86355	hypothetical prote

ALIGNMENTS

RESULT 1

JN0103
parathyroid hormone-related peptide precursor - mouse
C:Species: Mus musculus (house mouse)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: JN0103
R:Mangin, M.; Ikeda, K.; Broadus, A.E.
Gene 95, 195-202, 1990
A:Title: Structure of the mouse gene encoding parathyroid hormone-related peptide.
A:Reference number: JN0103; MUID:91065532; PMID:2249778
A:Accession: JN0103
A:Molecule type: DNA
A:Residues: 1-175 <MAN>
A:Cross-references: UNIPROT:P22858; UNIPARC:UPI00000299AE; GB:M340398; NID:920
C:Comment: The normal role of the parathyroid hormone-related peptide is unknown.
C:Genetics:
A:Introns: 34/2; 173/2
C:Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-36/Domain: propeptide #status predicted <PRO>
F:35-69/Domain: parathyroid hormone homology <PTH>
F:37-175/Product: parathyroid hormone-related peptide #status predicted <MAT>

Query Match 100.0%; Score 55; DB 1; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.014; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68
|||||

RESULT 2

A30012
parathyroid hormone-like protein precursor - rat
C:Species: Rattus norvegicus (Norway rat)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C:Accession: A34723; A34944; A30012; A43416
R:Karaplis, A.C.; Yasuda, T.; Hendy, G.N.; Goltzman, D.; Banville, D.
Mol. Endocrinol. 4, 441-446, 1990
A:Title: Gene-encoding parathyroid hormone-like peptide: nucleotide sequence of the rat
A:Reference number: A34723; MUID:90258937; PMID:2342478
A:Accession: A34723
A:Molecule type: DNA
A:Residues: 1-177 <KAR>
A:Cross-references: UNIPROT:P13085; UNIPARC:UPI0000132905; GB:M34112; NID:9206229; PIDN:
A:Note: the authors translated the codon TAC for residue 114 as Thr
R:Yasuda, T.; Banville, D.; Rabbani, S.A.; Hendy, G.N.; Goltzman, D.
Mol. Endocrinol. 3, 518-525, 1989
A:Title: Rat parathyroid hormone-like peptide: comparison with the human homologue and
A:Reference number: A34944; MUID:89313794; PMID:2747658
A:Accession: A34944

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A:Molecule type: mRNA
A:Residues: 1-177 <YAS>
A:Cross-references: UNIPARC:UPI0000132905; GB:M31603; NID:G206486; PIDN:AAA41980.1; PID:
R;Thiede, M.A.; Strewler, G.J.; Missenson, R.A.; Rosenblatt, M.; Rodan, G.A.
Science 242, 278-280, 1988
A:Title: Expression of a calcium-mobilizing parathyroid hormone-like peptide in lactatin
A:Reference number: A30012; MUID:89019361; PMID:3175653
A:Accession: A30012
A:Molecule type: mRNA
A:Residues: 1-177 <THI>
A:Cross-references: UNIPARC:UPI0000132905; EMBL:M21967; NID:G206488; PIDN:AAA41981.1; PI
R;Soifer, N.E.; Dee, K.E.; Insegna, K.L.; Burtis, W.J.; Matovicik, L.M.; Wu, T.L.; Milstc
J. Biol. Chem. 267, 18236-18243, 1992
A:Title: Parathyroid hormone-related protein. Evidence for secretion of a novel mid-regi
A:Reference number: A43416; MUID:92288199; PMID:1517251
A:Accession: A43416
A:Molecule type: protein
A:Residues: 'X', 75-84, 'S', 86-90, 'X', 92-93, 'X', 95-101, 'X', 103-105, 'X', 107 <SOI>
A:Cross-references: UNIPARC:UPI00000E5C38
A:Experimental source: RIN-141 cells
A:Note: sequence extracted from NCB1 backbone (NCBIP:112971)
A:Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
F;1-36/Domain: signal sequence #status predicted <SIG>
F;35-69/Domain: parathyroid hormone homology <PTH>
F;37-177/Product: parathyroid hormone-like protein #status predicted <WAT>
F;73-74/Cleavage site: Arg-Ala (unidentified proteinase) #status experimental
Query Match 100.0%; Score 55; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.014;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68

RESULT 3
PTHU2L
Parathyroid hormone-related protein precursor, splice form 2 - human
N;Alternate names: parathyroid hormone-like protein
N;Contains: parathyroid hormone-related protein, splice form 1; parathyroid hormone-rela
C;Species: Homo sapiens (man)
C;Date: 31-Mar-1993 #sequence revision 31-Mar-1993 #text change 09-Jul-2004
C;Accession: A33360; B33360; A28120; A94295; B94295; A36166; A91606; A28034; A36512; JSC
R;Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.
J. Biol. Chem. 264, 7720-7725, 1989
A:Title: Characterization of the human parathyroid hormone-like peptide gene. Functional
A:Reference number: A33360; MUID:89214227; PMID:2708388
A:Accession: A33360
A:Molecule type: DNA
A:Residues: 1-175 <YAS>
A:Cross-references: UNIPROT:P12272; UNIPARC:UPI000002B1CC; GB:M24349; GB:J04710; NID:g19
A:Accession: B33360
A:Molecule type: DNA
A:Residues: 176-177 <YAS?>
A:Cross-references: UNIPARC:UPI00001734EA; GB:J04710
R;Mangin, M.; Webb, A.C.; Dreyer, B.E.; Fosillico, J.T.; Ikeda, K.; Weir, E.C.; Stewart,
Proc. Natl. Acad. Sci. U.S.A. 85, 597-601, 1988
A:Title: Identification of a cDNA encoding a parathyroid hormone-like peptide from a hum
A:Reference number: A28120; MUID:88124888; PMID:2829195
A:Accession: A28120
A:Molecule type: mRNA
A:Residues: 1-177 <MAN>
A:Cross-references: UNIPARC:UPI0000047E25; EMBL:J03580
R;Suva, L.J.; Winslow, G.A.; Wettenhall, R.E.H.; Hammonds, R.G.; Moseley, J.M.; Diefenba
Science 237, 893-896, 1987
A:Title: A parathyroid hormone-related protein implicated in malignant hypercalcemia; cl
A:Reference number: A94295; MUID:87292119; PMID:3616618
A:Accession: A94295
A:Molecule type: mRNA
A:Residues: 1-177 <SUVI>
A:Cross-references: UNIPARC:UPI0000047E25; GB:M17183; NID:g190725; PIDN:AAA60221.1; PID:
A:Accession: B94295

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A:Molecule type: protein
A:Residues: 37-70, 'X', 72-84, 'X', 86-103-115 <SUUV2>
A:Cross-references: UNIPARC:UPI00001734EB; UNIPARC:UPI00001734EC
R;Thiede, M.A.; Strewler, G.J.; Missenson, R.A.; Rosenblatt, M.; Rodan, G.A.
Proc. Natl. Acad. Sci. U.S.A. 85, 4605-4609, 1988
A:Title: Human renal carcinoma expresses two messages encoding a parathyroid hormone-like
A:Reference number: A36166; MUID:88262996; PMID:3290897
A:Accession: A36166
A:Molecule type: mRNA
A:Residues: 1-175 <THI>
A:Cross-references: UNIPARC:UPI000002B1CC; GB:J03802; NID:g190717; PIDN:AAA60218.1; PID:
R;Suva, L.J.; Mather, K.A.; Gillespie, M.T.; Webb, G.C.; Ng, K.W.; Winslow, G.A.; Wood, V
Gene 77, 95-105, 1989
A:Title: Structure of the 5' flanking region of the gene encoding human parathyroid-horm
A:Reference number: A91606; MUID:89306685; PMID:2744490
A:Accession: A91606
A:Molecule type: DNA
A:Residues: 1-34 <SUUV3>
A:Cross-references: UNIPARC:UPI000016AF38; EMBL:X14304; NID:g35776; PIDN:CAA32480.1; PID
R;Moseley, J.M.; Kubota, M.; Diefenbach-Jagger, H.; Wettenhall, R.E.H.; Kemp, B.E.; Suva,
Proc. Natl. Acad. Sci. U.S.A. 84, 5048-5052, 1987
A:Title: Parathyroid hormone-related protein purified from a human lung cancer cell line
A:Reference number: A28034; MUID:87260926; PMID:2885845
A:Accession: A28034
A:Molecule type: protein
A:Residues: 37-52 <WOS>
A:Cross-references: UNIPARC:UPI00001734ED
C;Comment: This hormone stimulates an increase of cyclic AMP levels in osteoblasts and ca
ay a role in fetal calcium metabolism.
C;Genetics:
A:Gene: GDB:PTHLH
A:Cross-references: GDB:120323; OMIM:168470
A:Map position: 12p12.1-12p11.2
A:Introns: 34/2
C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
C;Keywords: alternative splicing; hormone; humoral hypercalcemia
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-36/Domain: propeptide #status predicted <PRO>
F;35-69/Domain: parathyroid hormone homology <PTH>
F;37-177/Product: parathyroid hormone-related peptide, splice form 1 #status predicted <
F;37-175/Product: parathyroid hormone-related peptide, splice form 1 #status predicted <
Query Match 100.0%; Score 55; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.014;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68

RESULT 4
JC4201
parathyroid hormone-related protein precursor - dog
C;Species: Canis lupus familiaris (dog)
C;Date: 10-Sep-1995 #sequence_revision 27-Oct-1995 #text_change 09-Jul-2004
C;Accession: JC4201
R;Rosol, T.J.; Steinhilber, C.L.; McCauley, L.K.; Groene, A.; DeWille, J.W.; Capen, C.C.
Gene 160, 241-243, 1995
A:Title: Sequences of the cDNAs encoding canine parathyroid hormone-related protein and
A:Reference number: JC4201; MUID:95369696; PMID:7642102
A:Accession: JC4201
A:Molecule type: mRNA
A:Residues: 1-177 <ROS>
A:Cross-references: UNIPROT:P52211; UNIPARC:UPI0000132901; GB:U15593; NID:g558476; PIDN:
C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
C;Keywords: hormone
F;1-36/Domain: signal sequence #status predicted <SIG>
F;35-69/Domain: parathyroid hormone homology <PTH>
F;37-177/Product: parathyroid hormone-related protein #status predicted <WAT>
Query Match 100.0%; Score 55; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.014;

```

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
|||||
Db 59 FLHHLIAEIH 68
|||||

RESULT 5
PTHU3L
parathyroid hormone-related protein precursor, splice form 3 - human
N:Alternate names: parathyroid hormone-like protein
C:Species: Homo sapiens (man)
C:Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 09-Jul-2004
C:Accession: C33360; A32756
R:Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.
J. Biol. Chem. 264, 7720-7725, 1989
A:Title: Characterization of the human parathyroid hormone-like peptide gene. Functional
A:Reference number: A33360; MUID:89214227; PMID:2708388
A:Accession: C33360
A:Molecule type: DNA
A:Residues: 1-209 <YAS>
A:Cross-references: UNIPROT:P12272; UNIPROT:Q15251; UNIPARC:UPI000002B1CD; GB:M24350; GE
R:Marglin, M.; Ikeda, K.; Dreyer, B.E.; Broadus, A.E.
Proc. Natl. Acad. Sci. U.S.A. 86, 2408-2412, 1989
A:Title: Isolation and characterization of the human parathyroid hormone-like peptide ge
A:Reference number: A32756; MUID:89184636; PMID:2928340
A:Accession: A32756
A:Molecule type: DNA
A:Residues: 176-209 <MAN>
A:Cross-references: UNIPARC:UPI0000035191; GB:M34071; NID:gl90715; PIDN:AAA60217.1; PID:
C:Comment: This hormone causes humoral hypercalcemia of malignancy when secreted by cer
C:Genetics:
A:Gene: GDB:PTHLH
A:Cross-references: GDB:120323; OMIM:168470
A:Map position: 12p12.1-12p11.2
A:Introns: 34/2; 175/2
C:Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
F:1-24/Domain: alternative splicing; hormone; humoral hypercalcemia
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-36/Domain: propeptide #status predicted <PRO>
F:35-69/Domain: parathyroid hormone homology <PTH>
F:37-209/Product: parathyroid hormone-related protein, splice form 3 #status predicted <

Query Match 100.0%; Score 55; DB 1; Length 209;
Best Local Similarity 100.0%; Pred. No. 0.017; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
|||||
Db 59 FLHHLIAEIH 68
|||||

RESULT 6
T08212
RNA-directed RNA polymerase (EC 2.7.7.48) - Hendra virus
C:Species: Hendra virus
C:Date: 11-Jun-1993 #sequence_revision 11-Jun-1993 #text_change 09-Jul-2004
C:Accession: T08212
R:Yu, M.; Hansson, E.; Langedijk, J.P.M.; Eaton, B.T.; Wang, L.F.
Virology 251, 227-233, 1998
A:Title: The attachment protein of hendra virus has high structural similarity but limit
A:Reference number: Z16405; MUID:99058172; PMID:9837786
A:Accession: T08212
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: genomic RNA
A:Residues: 1-2244 <YUM>
A:Cross-references: UNIPROT:O89344; UNIPARC:UPI00000F0A47; EMBL:AF017149; NID:g3273489;
C:Genetics:
A:Gene: L
A:Superfamily: parainfluenza virus RNA-directed RNA polymerase
C:Keywords: nucleotidyltransferase

Query Match 81.8%; Score 45; DB 2; Length 2244;

Best Local Similarity 80.0%; Pred. No. 12; Mismatches 8; Conservative 0; Indels 2; Gaps 0;

QY 1 FLHHLIAEIH 10
|||||
Db 311 FLHHLIAEIH 320
|||||

RESULT 7
SAZOK1
major merozoite surface antigen precursor - malaria parasite (Plasmodium falciparum) (st
C:Species: Plasmodium falciparum
C:Date: 30-Sep-1987 #sequence_revision 30-Sep-1987 #text_change 31-Dec-2004
C:Accession: A25120
R:Mackay, M.; Goman, M.; Bone, N.; Hyde, J.E.; Scaife, J.; Certa, U.; Stunnenberg, H.; B
EMBO J. 4, 3823-3829, 1985
A:Title: Polymorphism of the precursor for the major surface antigens of Plasmodium falc
A:Reference number: A91030; MUID:86136024; PMID:3004972
A:Accession: A25120
A:Molecule type: DNA
A:Residues: 1-1631 <MAC>
A:Cross-references: UNIPARC:UPI0000174695
C:Comment: The merozoite stages of different strains have strain-specific surface antige
C:Superfamily: P. falciparum has three stages: sporozoite, merozoite, and gametocyte. The me
C:Keywords: glycoprotein; merozoite; surface antigen; tandem repeat; transmembrane prote
F:1-19/Domain: signal sequence #status predicted <SIG>
F:20-1631/Product: major merozoite surface antigen #status predicted <MAT>
F:67-84/Region: 3-residue repeats (S-G-T/P)
F:1614-1631/Domain: membrane anchor #status predicted <MBN>
F:97,259,755,759,835,911,955,1049,1156,1165,1436,1563/Binding site: carbohydrate (Asn) (

Query Match 70.9%; Score 39; DB 1; Length 1631;
Best Local Similarity 87.5%; Pred. No. 97; Mismatches 7; Conservative 1; Indels 0; Gaps 0;

QY 2 LHLHIAEI 9
|||||
Db 1141 LHLHIAEL 1148
|||||

RESULT 8
S05603
major merozoite surface antigen precursor - malaria parasite (Plasmodium falciparum) (st
N:Alternate names: gp195 surface antigen
C:Species: Plasmodium falciparum
C:Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 31-Dec-2004
C:Accession: S05603; S04850
R:Myler, P.J.
submitted to the EMBL Data Library, April 1989
A:Reference number: S05603
A:Accession: S05603
A:Molecule type: mRNA
A:Residues: 1-1639 <MYL>
A:Cross-references: UNIPROT:P04933; UNIPARC:UPI0000000672; EMBL:X15063; NID:g9896; PIDN:
R:Myler, P.J.
Nucleic Acids Res. 17, 5401, 1989
A:Title: Nucleotide and deduced amino acid sequence of the gp195 (MSA-1) gene from Plas
A:Reference number: S04850; MUID:89345116; PMID:2668887
A:Accession: S04850
A:Molecule type: mRNA
A:Residues: 1504-1639 <MYL2>
A:Cross-references: UNIPARC:UPI0000177F84; EMBL:X15063
C:Superfamily: G surface protein
C:Keywords: glycoprotein; merozoite; surface antigen
F:1-19/Domain: signal sequence #status predicted <Sig>
F:20-1639/Product: major merozoite surface antigen #status predicted <MAT>

Query Match 70.9%; Score 39; DB 2; Length 1639;
Best Local Similarity 87.5%; Pred. No. 98; Mismatches 7; Conservative 1; Indels 0; Gaps 0;

QY 2 LHLHIAEI 9

Db 1150 LHLHIAEL 1157
|||||:

RESULT 9

A24594
probable major surface antigen (83K, 19K, 42K) precursor - malaria parasite (Plasmodium
C;Species: Plasmodium falciparum
C;Date: 29-Aug-1987 #sequence_revision 29-Aug-1987 #text_change 31-Dec-2004
C;Accession: A24594
R;Holder, A.A.; Lockyer, M.J.; Odink, K.G.; Sandhu, J.S.; Riveros-Moreno, V.; Nicholls,
Nature 317, 270-273, 1985
A;Title: Primary structure of the precursor to the three major surface antigens of Plas
A;Reference number: A24594; MUID:86014355; PMID:2995820
A;Accession: A24594
A;Molecule type: DNA
A;Residues: 1-1640 <HOL>
A;Cross-references: UNIPROT:P04933; UNIPARC:UPI0000177F8A
C;Superfamily: G surface protein
C;Keywords: surface antigen

Query Match 70.9%; Score 39; DB 2; Length 1640;
Best Local Similarity 87.5%; Pred. No. 98;
Matches 7; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 2 LHLHIAEI 9

Db 1150 LHLHIAEL 1157
|||||:

RESULT 10

H87447
conserved hypothetical protein CC1601 [imported] - Caulobacter crescentus
C;Species: Caulobacter crescentus
C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 09-Jul-2004
C;Accession: H87447
R;Niernan, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, J.
B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon
n, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M.
Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
A;Accession: H87447
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-315 <STO>
A;Cross-references: UNIPROT:Q9A7W8; UNIPARC:UPI00000C7439; GB:AE005673; NID:gl3422998; F
C;Genetics:
A;Gene: CC1601

Query Match 69.1%; Score 38; DB 2; Length 315;
Best Local Similarity 60.0%; Pred. No. 26;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FLHLHIAEIH 10
|||:|::|

Db 129 FLHDVIADLH 138

RESULT 11

S70396
zona pellucida glycoprotein C - dog
C;Species: Canis lupus familiaris (dog)
C;Date: 28-Oct-1996 #sequence_revision 27-Feb-1997 #text_change 09-Jul-2004
C;Accession: S70396
R;Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; Hau, K.T.; Yurewicz, E.C.; Sacco, A.G.
DNA Seq. 4, 361-393, 1994
A;Title: Cloning and characterization of zona pellucida genes and cDNAs from a variety c
A;Reference number: S70396; MUID:95143578; PMID:7841460
A;Accession: S70396
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-426 <HAR>

A;Cross-references: UNIPROT:P48831; UNIPARC:UPI000013C462; EMBL:U05780; NID:9458276; PID
C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
F;43-299/Domain: ZP domain homology <ZPH>

Query Match 69.1%; Score 38; DB 2; Length 426;
Best Local Similarity 60.0%; Pred. No. 36;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 1 FLHLHIAEIH 10
|||||:

Db 226 FLHKKIVDFH 235

RESULT 12

G86790
fibronectin-binding protein [imported] - Lactococcus lactis subsp. lactis (strain IL1403)
C;Species: Lactococcus lactis subsp. lactis
C;Date: 23-Mar-2001 #sequence_revision 23-Mar-2001 #text_change 09-Jul-2004
C;Accession: G86790
R;Bolotin, A.; Wincker, P.; Mauger, S.; Jaillon, O.; Malarre, K.; Weissenbach, J.; Ehrlic
Genome Res. 11, 731-753, 2001
A;Title: The complete genome sequence of the lactic acid bacterium Lactococcus lactis ssp
A;Reference number: A86625; MUID:21235186; PMID:11337471
A;Accession: G86790
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-540 <STO>
A;Cross-references: UNIPROT:Q9CFY4; UNIPARC:UPI000000C6A10; GB:AE005176; PID:gl2724308; J
A;Experimental source: strain IL1403
C;Genetics:
A;Gene: yngB

Query Match 69.1%; Score 38; DB 2; Length 540;
Best Local Similarity 66.7%; Pred. No. 46;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FLHLHIAEI 9
|||||:

Db 7 FLHMTAEL 15

RESULT 13

S61175
Probable membrane protein YDR380W - yeast (Saccharomyces cerevisiae)
N;Alternate names: Hypothetical protein D9481.3
C;Species: Saccharomyces cerevisiae
C;Date: 23-Feb-1996 #sequence_revision 01-Mar-1996 #text_change 05-Oct-2004
C;Accession: S61175
R;Ding, H.
submitted to the EMBL Data Library, June 1995
A;Description: The sequence of S. cerevisiae cosmid 9481.
A;Reference number: S61159
A;Accession: S61175
A;Molecule type: DNA
A;Residues: 1-635 <DIN>
A;Cross-references: UNIPROT:Q06408; UNIPARC:UPI000006A539; EMBL:U28373; NID:9849184; PID
A;Experimental source: strain S288C (AB972)
C;Genetics:
A;Gene: SGD:ARO10; MIPS:YDR380W
A;Cross-references: SGD:S0002788
A;Map position: 4R
C;Superfamily: pyruvate decarboxylase/indolepyruvate decarboxylase; thiamin pyrophosphat
C;Keywords: transmembrane protein
F;467-483/Domain: transmembrane #status predicted <TM>

Query Match 69.1%; Score 38; DB 2; Length 635;
Best Local Similarity 55.6%; Pred. No. 55;
Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 2 LHLHIAEIH 10
|||||:

Db 143 LHLVLPQLH 151

RESULT 14
T03504
probable DNA topoisomerase (ATP-hydrolyzing) (EC 5.99.1.3) chain B - Rhodobacter capsula
N;Alternate names: DNA gyrase chain b
C;Species: Rhodobacter capsulatus
C;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #text_change 05-Oct-2004
C;Accession: T03504
R;Vlcek, C.; Paces, V.; Maltsev, N.; Paces, J.; Haselkorn, R.; Fonstein, M.
Proc. Natl. Acad. Sci. U.S.A. 94, 9384-9388, 1997
A;Title: Sequence of a 189-kb segment of the chromosome of Rhodobacter capsulatus SB1003
A;Reference number: Z14955; MUID:97404404; PMID:9256491
A;Accession: T03504
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-652 <VLC>
A;Cross-references: UNIPROT:O68071; UNIPARC:UPI00000BE885; EMBL:AF010496; NID:G3128256;
C;Genetics:
A;Map position: 1
C;Superfamily: Type II topoisomerase, subunit B
C;Keywords: isomerase

Query Match 69.1%; Score 38; DB 2; Length 652;
Best Local Similarity 75.0%; Pred. No. 56;
Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 2 LHHLIAEI 9
|||:|
DB 44 LHHMVAEI 51

RESULT 15
E89783
hypothetical protein SA0202 [imported] - Staphylococcus aureus (strain N315)
C;Species: Staphylococcus aureus
C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004
C;Accession: E89783
R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; Oguc
ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, K.;
C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K.
Lancet 357, 1225-1240, 2001
A;Title: Whole genome sequencing of methicillin-resistant Staphylococcus aureus.
A;Reference number: A89758; MUID:21311952; PMID:11418146
A;Accession: E89783
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-668 <KUR>
A;Cross-references: UNIPROT:Q99X13; UNIPARC:UPI00000CAC13; GB:BA0000018; PID:gi3700125; F
A;Experimental source: strain N315
C;Genetics:
A;Gene: SA0202

Query Match 69.1%; Score 38; DB 2; Length 668;
Best Local Similarity 60.0%; Pred. No. 57;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
:|||||:
DB 290 YLHHLIQAMH 299

Search completed: December 2, 2005, 23:29:18
Job time : 8.38202 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:38:37 ; Search time 27.809 Seconds
(without alignments)
253.705 Million cell updates/sec

Title: US-10-691-125-3
Perfect score: 55
Sequence: 1 FLHLLIAEIH 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

UniProt 05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	55	100.0	94	2	Q95K22 FELCA
2	55	100.0	121	1	Q9GK30 felis silve
3	55	100.0	137	1	Q9GMB7 equus cabal
4	55	100.0	170	2	Q7YR12 cervus elap
5	55	100.0	175	1	P22858 mus musculu
6	55	100.0	175	2	Q53XY9 homo sapien
7	55	100.0	175	2	Q81166 mus musculu
8	55	100.0	175	2	Q224X4 mus musculu
9	55	100.0	175	2	Q340C1 mus musculu
10	55	100.0	177	1	P58073 bos taurus
11	55	100.0	177	1	P52211 canis famil
12	55	100.0	177	1	P12272 homo sapien
13	55	100.0	177	1	Q3GLC7 oryctolagus
14	55	100.0	177	1	P3085 rattus norv
15	55	100.0	177	2	Q6FH74 homo sapien
16	55	100.0	177	2	Q659U2 phoca vitul
17	55	100.0	177	2	Q659U3 halichoerus
18	55	100.0	177	2	Q866H2 sus scrofa
19	55	100.0	202	2	Q8BDZ3 oryctolagus
20	45	81.8	2244	2	O89344 hendra viru
21	44	80.0	404	2	Q5U563 xenopus lae
22	44	80.0	417	2	Q52KY3 xenopus lae
23	44	80.0	417	2	Q640T7 xenopus tro
24	44	80.0	417	2	O6GNE3 xenopus lae
25	42	76.4	2244	2	Q5K4D7 nipah virus
26	42	76.4	2244	2	Q914E5 nipah virus
27	42	76.4	2244	2	Q997F0 nipah virus
28	42	76.4	2244	2	Q4VCP4 nipah virus
29	41	74.5	326	2	O8TNZ4 methanosarc
30	39	70.9	209	2	Q4P0S2 ustilago ma
31	39	70.9	360	2	Q9NAT3 plasmodium

32 39 70.9 539 2 Q25976_PLAFA Q25976 plasmodium
33 39 70.9 539 2 Q9TYG1_PLAFA Q9TYG1 plasmodium
34 39 70.9 539 2 Q25971_PLAFA Q25971 plasmodium
35 39 70.9 539 2 Q25966_PLAFA Q25966 plasmodium
36 39 70.9 539 2 Q25972_PLAFA Q25972 plasmodium
37 39 70.9 539 2 Q25981_PLAFA Q25981 plasmodium
38 39 70.9 539 2 Q25973_PLAFA Q25973 plasmodium
39 39 70.9 539 2 Q25984_PLAFA Q25984 plasmodium
40 39 70.9 652 2 Q6SF42_9BACT Q6SF42 uncultured
41 39 70.9 658 2 Q4TMU5_9SPHN Q4TMU5 erythrobaet
42 39 70.9 790 2 Q61H98_CAEBR Q61H98 caenorhabdi
43 39 70.9 1247 2 Q7QDV4_ANOGA Q7QDV4 anopheles g
44 39 70.9 1630 1 MSP1_PLAFK P04932 plasmodium
45 39 70.9 1639 1 MSP1_PLAFW P04933 plasmodium

ALIGNMENTS

RESULT 1

Q95K22_FELCA
ID Q95K22_FELCA PRELIMINARY; PRT; 94 AA.
AC Q95K22; 2001 (Tremblrel. 19, Created)
DT 01-DEC-2001 (Tremblrel. 19, Last sequence update)
DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)
DE Parathyroid hormone-related protein precursor (Fragment).
GN Name=PTHrP;
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
OC Felis.
OX NCBI_TaxID=9685;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX PubMed-11776973;
RA Tannehill-Gregg S., Kergosien E., Rosol T.J.;
RT "Feline head and neck squamous cell carcinoma cell line:
characterization, production of parathyroid hormone-related protein,
and regulation by transforming growth factor-beta.";
RT In Vitro Cell. Dev. Biol. Anim. 37:676-683 (2001).
RL [2]
RN NUCLEOTIDE SEQUENCE.
RA Tannehill-Gregg S.H., Rosol T.J., Kergosien E.A.;
RL Submitted (AUG-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY052414; AAU13054.1; -; mRNA.
DR HSP; P12272; IBZG.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003626; PTH_related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Signal.
FT SIGNAL <1 22 Potential.
FT CHAIN 23 >94 parathyroid hormone-related protein.
FT NON_TER 1 1
FT NON_TER 94 94
SQ SEQUENCE 94 AA; 10717 MW; DBD9FE0DC4D27C82 CRC64;

Query Match 100.0%; Score 55; DB 2; Length 94;

Best Local Similarity 100.0%; Pred. No. 0.02;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10

Db 45 FLHLLIAEIH 54

RESULT 2

OS Cervus elaphus (Red deer).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
 OC Pecora; Cervidae; Cervinae; Cervus.
 OX NCBI_TaxID=9860;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX PubMed=15516324; DOI=10.1016/j.cellbi.2004.05.005;
 RA Barling P.M., Liu H., Matich J., Mount J., Ka Wai Lai A., Ma L.,
 RA Basford Nicholson L.F.
 RT "Expression of PTHrP and the PTH/PTHrP receptor in growing red deer
 RT antler.";
 RL Cell Biol. Int. 28:661-673(2004).
 DR EMBL; AY328402; AAP93209.1; -; mRNA.
 DR HSSP; P12272; 1BZG.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007595; P:lactation; IEA.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR InterPro; IPR003626; PTH related.
 DR Pfam; PF01279; Parathyroid; 1.
 DR ProDom; PD013225; PTH-related; 1.
 FT NON_TER
 SQ SEQUENCE 170 AA; 19445 MW; 08A124B45BDD33BF CRC64;
 Query Match 100.0%; Score 55; DB 2; Length 170;
 Best Local Similarity 100.0%; Pred. No. 0.038;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
 Db 52 FLHLLIAEIH 61

RESULT 5
 PTHR MOUSE STANDARD; PRT; 175 AA.
 AC P22858;
 DT 01-AUG-1991 (Rel. 19, Created)
 DT 01-AUG-1991 (Rel. 19, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Parathyroid hormone-related protein precursor (PTH-rp) (PLP)
 DE [Contains: Osteostatin].
 GN Name=PTHrP; Synonyms=Pthrp;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=91065532; PubMed=2249778; DOI=10.1016/0378-1119(90)90362-U;
 RA Mangin M., Ikeda K., Broadus A.E.;
 RA "Structure of the mouse gene encoding parathyroid hormone-related
 RT peptide.";
 RL Gene 95:195-202(1990).
 RN [2]
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
 RC STRAIN=FVB/N; TISSUE=Mammary gland;
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Udwin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S.G., Garcia A.M., Gay L.J., Rulyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahy J., Helton E., Kettner M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Small D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16999-16903(2002).
 CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of
 CC cellular and organ growth, development, migration, differentiation
 CC and survival and of epithelial calcium ion transport. Regulates
 CC endochondral bone development and epithelial-mesenchymal
 CC interactions during the formation of the mammary glands and teeth
 CC (By similarity).
 CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
 CC resorption (By similarity).
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
 CC similarity).
 CC -!- PTM: There are several secretory forms, including osteostatin,
 CC arising from endoproteolytic cleavage of the initial translation
 CC product. Each of these secretory forms is believed to have one or
 CC more of its own receptors that mediates the normal paracrine,
 CC autocrine and endocrine actions (By similarity).
 CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
 CC
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.

EMBL; M60057; AAA63639.1; -; Genomic DNA.
 EMBL; M60058; AAA63639.1; JOINED; Genomic DNA.
 EMBL; M60056; AAA63639.1; JOINED; Genomic DNA.
 EMBL; BC058187; AAH58187.1; -; mRNA.
 PIR; JN0103; JN0103.
 DR HSSP; P12272; 1BZG.
 DR Ensembl; ENSMUSG00000048776; Mus musculus.
 DR MGI; MGI:97800; Pthlh.
 DR GO; GO:0005615; C:extracellular space; TAS.
 DR GO; GO:0005179; F:hormone activity; TAS.
 DR GO; GO:0048286; P:alveolus development; IMP.
 DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
 DR GO; GO:0001501; P:skeletal development; IMP.
 DR GO; GO:0043129; P:surfactant homeostasis; IMP.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR InterPro; IPR003626; PTH-related.
 DR PANTHER; PTHR1223; PTH-related; 1.
 DR Pfam; PF01279; Parathyroid; 1.
 DR ProDom; PD013225; PTH related; 1.
 DR PROSITE; PS00335; PARATHYROID; 1.
 KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
 KW Signal.
 FT SIGNAL 1 24 Potential.
 FT PROPEP 25 34
 FT CHAIN 37 175 Parathyroid hormone-related protein.
 FT PEPTIDE 143 173 Osteostatin (By similarity).
 FT MOTIF 108 129 Nuclear localization signal (By
 FT similarity).
 SQ SEQUENCE 175 AA; 20100 MW; 6D27CFCC31900B45 CRC64;
 Query Match 100.0%; Score 55; DB 1; Length 175;
 Best Local Similarity 100.0%; Pred. No. 0.039;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
 Db 59 FLHLLIAEIH 68

RESULT 6
 Q53XY9_HUMAN
 ID Q53XY9 HUMAN PRELIMINARY; PRT; 175 AA.
 AC Q53XY9;

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DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone-like hormone.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kainine N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA Koundinya M., Raphael J., Moreira D., Kelley T., Labaer J., Lin Y.,
RA Phelan M., Farmer A.;
RT "Cloning of human full-length cDNAs in BD Creator(TM) System Donor
RT vector.";
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; BT007178; AAF35842.1; -; mRNA.
SQ SEQUENCE 175 AA; 19900 MW; 4FEE954C51DB3E7D CRC64;

Query Match 100.0%; Score 55; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68

RESULT 7
ID Q811S6 MOUSE PRELIMINARY; PRT; 175 AA.
AC Q811S6;
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Parathyroid hormone-related peptide.
GN Name=Pthlh;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=SPRET/ET; TISSUE=Lung;
RX MEDLINE=22948948; PubMed=14586397; DOI=10.1038/sj.onc.1207088;
RA Benelli R., Peissel B., Manenti G., Gariboldi M., Vanzetto C.,
RA Albini A., Dragani T.A.;
RT "Allele-specific patterns of the mouse parathyroid hormone-related
RT protein: influences on cell adhesion and migration.";
RL Oncogene 22:7711-7715(2003).
DR EMBL; AY183377; AAO25537.1; -; mRNA.
DR HSP; P12272; 1BZG.
DR MGI; MGI:97800; Pthlh.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0048286; P:alveolus development; IMP.
DR GO; GO:0030282; P:bone mineralization; IMP.
DR GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
DR GO; GO:0001501; P:skeletal development; IMP.
DR GO; GO:0043229; P:surfactant homeostasis; IMP.
DR InterPro; IPR001415; Parathyrd_hrm.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
DR SIGNAL.
FT SIGNAL 1 36 Potential.
FT CHAIN 37 175 parathyroid hormone-related protein.
SQ SEQUENCE 175 AA; 20150 MW; 6C00142741900B5B CRC64;

Query Match 100.0%; Score 55; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68

RESULT 8
ID Q924X4 MOUSE PRELIMINARY; PRT; 175 AA.
AC Q924X4;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Parathyroid hormone-related protein precursor.
GN Name=Pthlh;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=C3H/HeJ; TISSUE=Lung;
RX MEDLINE=20552296; PubMed=11103933; DOI=10.1038/sj.onc.1203916;
RA Manenti G., Peissel B., Gariboldi M., Falvella F.S., Zaffaroni D.,
RA Allaria B., Pazzaglia S., Rebessi S., Covelli V., Saran A.,
RA Dragani T.A.;
RT "A cancer modifier role for parathyroid hormone-related protein.";
RL Oncogene 19:5324-5328(2000).
DR EMBL; AJ278119; CAC39218.1; -; mRNA.
DR HSP; P12272; 1BZG.
DR MGI; MGI:97800; Pthlh.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0048286; P:alveolus development; IMP.
DR GO; GO:0030282; P:bone mineralization; IMP.
DR GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
DR GO; GO:0001501; P:skeletal development; IMP.
DR GO; GO:0043129; P:surfactant homeostasis; IMP.
DR InterPro; IPR001415; Parathyrd_hrm.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
DR SIGNAL.
FT SIGNAL 1 36 Potential.
FT CHAIN 37 175 parathyroid hormone-related protein.
SQ SEQUENCE 175 AA; 20096 MW; 6D22BCC31900B45 CRC64;

Query Match 100.0%; Score 55; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68

RESULT 9
ID Q540C1 MOUSE PRELIMINARY; PRT; 175 AA.
AC Q540C1;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone-related protein precursor.
GN Name=Pthlh; Synonyms=Pthip;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Euarchontoglires; Glires; Rodentia; Sciurognathi;
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OC Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA STRAIN=C57BL/6;
RC Toribio R.E., Rourke K., Levine A., Kohn C.W., Rosol T.J.;
RT "Molecular cloning of the cDNA for Mus musculus parathyroid hormone-
RL related protein (PTHrP).";
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY220497; AA064343.1; -; mRNA.
DR MGI; MGI:97800; Pthlh.
DR GO; GO:0005615; C:extracellular space; TAS.
DR GO; GO:0005179; F:hormone activity; TAS.
DR GO; GO:0048286; P:alveolus development; IMP.
DR GO; GO:0030855; P:epithelial cell differentiation; IMP.
DR GO; GO:0001501; P:skeletal development; IMP.
DR GO; GO:0043129; P:surfactant homeostasis; IMP.
KW Signal.
FT CHAIN 1 36
FT SIGNAL 37 175 parathyroid hormone-related protein.
SQ SEQUENCE 175 AA; 20100 MW; 6D27CFCC31900B45 CRC64;

Query Match 100.0%; Score 55; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68

RESULT 10
PTHr BOVIN STANDARD; PRT; 177 AA.
AC PS8073; Q8HYS1;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTHrP)
DE [Contains: Osteostatin].
GN Bos taurus (Bovine).
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC Pecora; Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Brain;
RX MEDLINE=98244232; PubMed=9584841; DOI=10.1677/jme.0.0200271;
RA Wojcik S.F., Schanbacher F.L., McCauley L.K., Zhou H.,
RA Kartogiannis V., Capen C.C., Rosol T.J.;
RT "Cloning of bovine parathyroid hormone-related protein (PTHrP) cDNA
RL and expression of PTHrP mRNA in the bovine mammary gland.";
RL J. Mol. Endocrinol. 20:271-280(1998).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=Holstein-Friesian; TISSUE=Mammary gland;
RA Onda K., Inaba M., Ono K.;
RT "Molecular cloning of bovine parathyroid hormone-related protein
RL cDNA.";
RL Submitted (DEC-2002) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of
CC cellular and organ growth, development, migration, differentiation
CC and survival and of epithelial calcium ion transport. Regulates
CC endochondral bone development and epithelial-mesenchymal
CC interactions during the formation of the mammary glands and teeth
CC (By similarity).
CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
CC resorption (By similarity).
CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
CC similarity).
CC -!- TISSUE SPECIFICITY: Expressed in the mammary gland.

```

```

-!- PTM: There are several secretory forms, including osteostatin,
arising from endoproteolytic cleavage of the initial translation
product. Each of these secretory forms is believed to have one or
more of its own receptors that mediates the normal paracrine,
autocrine and endocrine actions (By similarity)
-!- SIMILARITY: Belongs to the parathyroid hormone family.
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC use as long as its content is in no way modified and this statement is not
CC removed.
-----
CC EMBL; AB097837; BAC44840.1; -; mRNA.
DR HSP; P12272; IBZG.
DR InterPro; IPR001415; Parathyrd.hrm.
DR InterPro; IPR003626; PTH_related.
DR PANTHER; PTHR17223; PTH_related; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein;
KW Signal.
FT SIGNAL 1 24 Potential.
FT PROPEP 25 34 By similarity.
FT CHAIN 37 177 Parathyroid hormone-related protein.
FT PEPTIDE 143 175 Osteostatin (By similarity).
FT MOTIF 108 129 Nuclear localization signal. (By
similarity).
FT CONFLICT 26 26 S -> L (in Ref. 2).
SQ SEQUENCE 177 AA; 20408 MW; 6A5B48ECB219EF08 CRC64;

Query Match 100.0%; Score 55; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 59 FLHLLIAEIH 68

RESULT 11
PTHr CANFA STANDARD; PRT; 177 AA.
AC PS2211;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTHrP)
DE [Contains: Osteostatin].
GN Name=PTHrP;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI_TaxID=9615;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Anal sac;
RX MEDLINE=95369696; PubMed=7642102; DOI=10.1016/0378-1119(94)00912-C;
RA Rosol T.J., Steinmeyer C.L., McCauley L.K., Greene A., DeWille J.W.,
RA Capen C.C.;
RT "Sequences of the cDNAs encoding canine parathyroid hormone-related
RL protein and parathyroid hormone.";
RL Gene 160:241-243(1995).
CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of
CC cellular and organ growth, development, migration, differentiation
CC and survival and of epithelial calcium ion transport. Regulates
CC endochondral bone development and epithelial-mesenchymal
CC interactions during the formation of the mammary glands and teeth
CC (By similarity).
CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone

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RX MEDLINE=92007462; PubMed=1915066;
RA Fenton A.J., Kemp B.E., Kent G.N., Moseley J.M., Zheng M.H.,
RA Rowe D.J., Britto J.M., Martin T.J., Nicholson G.C.;
RT "A carboxyl-terminal peptide from the parathyroid hormone-related
RL protein inhibits bone resorption by osteoclasts.";
RL Endocrinology 129:1762-1768(1991).
RN [10]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=92063907; PubMed=1954916;
RA Fenton A.J., Kemp B.E., Hammonds R.G., Mitchell K., Moseley J.M.,
RA Martin T.J., Nicholson G.C.;
RT "A potent inhibitor of osteoclastic bone resorption within a highly
RL conserved pentapeptide region of parathyroid hormone-related protein;
RL PTHrP107-111.";
RL Endocrinology 129:3424-3426(1991).
RN [11]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=97289439; PubMed=9144344;
RA Martinez M.E., Garcia-Ocana A., Sanchez M., Medina S., del Campo T.,
RA Valin A., Sanchez-Cabredo M.J., Esbrit P.;
RT "C-terminal parathyroid hormone-related protein inhibits proliferation
RL and differentiation of human osteoblast-like cells.";
RL J. Bone Miner. Res. 12:778-785(1997).
RN [12]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=97200810; PubMed=9048639; DOI=10.1210/en.138.3.1299;
RA Cornish J., Callon K.E., Nicholson G.C., Reid I.R.;
RT "Parathyroid hormone-related protein-(107-139) inhibits bone
RL resorption in vivo.";
RL Endocrinology 138:1299-1304(1997).
RN [13]
RP NUCLEOCYTOPLASMIC SHUTTLLING.
RX MEDLINE=22736810; PubMed=12852260; DOI=10.1016/S0083-6729(03)01010-0;
RA Jans D.A., Thomas R.J., Gillespie M.T.;
RT "Parathyroid hormone-related protein (PTHrP): a nucleocytoplasmic
RL shuttling protein with distinct paracrine and intracrine roles.";
RL Vitam. Horm. 66:345-384(2003).
RN [14]
RP NUCLEAR LOCALIZATION SIGNAL.
RX MEDLINE=21294781; PubMed=11401507; DOI=10.1006/bbrc.2001.4607;
RA Lam M.H., Hu W., Xiao C.Y., Gillespie M.T., Jans D.A.;
RT "Molecular dissection of the importin beta1-recognized nuclear
RL targeting signal of parathyroid hormone-related protein.";
RL Biochem. Biophys. Res. Commun. 282:629-634(2001).
RN [15]
RP REVIEW.
RX MEDLINE=22425984; PubMed=12538599; DOI=10.1210/en.2002-220818;
RA Fiaschi-Taesch N.M., Stewart A.F.;
RT "Mini-review: parathyroid hormone-related protein as an intracrine
RL factor -- trafficking mechanisms and functional consequences.";
RL Endocrinology 144:407-411(2003).
RN [16]
RP STRUCTURE BY NMR OF 37-70.
RX MEDLINE=99158054; PubMed=10050767; DOI=10.1016/S0014-5793(98)01658-5;
RA Weidner M., Marx U.C., Seidel G., Schafer W., Hoffmann E., Esswein A.,
RA Rosch P.;
RT "The structure of human parathyroid hormone-related protein(1-34) in
RL near-physiological solution.";
RL FEBS Lett. 444:239-244(1999).
RN [17]
RP X-RAY CRYSTALLOGRAPHY (2.9 ANGSTROMS) OF 103-130.
RX MEDLINE=22394015; PubMed=12504010; DOI=10.1016/S1097-2765(02)00727-X;
RA Cingolani G., Bedenko J., Gillespie M.T., Gerace L.;
RT "Molecular basis for the recognition of a nonclassical nuclear
RL localization signal by importin beta.";
RL Mol. Cell 10:1345-1353(2002).
RN [18]
RP FUNCTION: Neuroendocrine peptide which is a critical regulator of
CC cellular and organ growth, development, migration, differentiation
CC and survival and of epithelial calcium ion transport. Regulates
CC endochondral bone development and epithelial-mesenchymal
CC interactions during the formation of the mammary glands and teeth.
CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
CC resorption.

CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted.
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=3;
CC Comment=Additional isoforms seem to exist;
CC Name=1;
CC IsoId=PI2272-1; Sequence=Displayed;
CC Name=2;
CC IsoId=PI2272-2; Sequence=VSP_004534;
CC Name=3;
CC IsoId=PI2272-3; Sequence=VSP_004535;
CC -!- TISSUE SPECIFICITY: Ubiquitous. Also expressed in the mammary
CC gland.
CC -!- PTM: There are 3 principal secretory forms, called PTHrP[1-36],
CC PTHrP[38-94], and osteostatin [PTHrP[107-139]] arising from
CC endoproteolytic cleavage of the initial translation product. Each
CC of these secretory forms is believed to have one or more of its
CC own receptors that mediates the normal paracrine, autocrine and
CC endocrine actions.
CC -!- DISEASE: Produced by many tumors from patients with HMM (humoral
CC hypercalcemia of malignancy).
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC -----
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CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL: M17183, AAA60221.1; -; Genomic_DNA.
DR
Query Match 100.0%; Score 55; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 FLHHLIAEIH 10
Db 59 FLHHLIAEIH 68
RESULT 13
PTHR_RABIT
ID PTHR_RABIT STANDARD; PRT; 177 AA.
AC Q9GLC7;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp)
DE [Contains: Osteostatin].
GN Name=PTHrP; Synonyms=PTHrP;
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA McCaughen-Carucci J.F., Mitnick M., Emanuel J.R., Dworetzky S.I.;
RT "Cloning and expression of rabbit parathyroid hormone-related
RT protein.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Neuroendocrine peptide which is a critical regulator of
CC cellular and organ growth, development, migration, differentiation
CC and survival and of epithelial calcium ion transport. Regulates
CC endochondral bone development and epithelial-mesenchymal
CC interactions during the formation of the mammary glands and teeth
CC (By similarity).
CC -!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone
CC resorption (By similarity).
CC -!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By
CC similarity).
CC -!- PTM: There are several secretory forms, including osteostatin,
CC arising from endoproteolytic cleavage of the initial translation
CC product. Each of these secretory forms is believed to have one or

more of its own receptors that mediates the normal paracrine, autocrine and endocrine actions (By similarity).
 -1- SIMILARITY: Belongs to the parathyroid hormone family.

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 EMBL; AF3000703; AAG13414.1; -; mRNA.
 HSP; P12272; 1B2G.
 InterPro; IPR001415; Parathyroid hrm.
 InterPro; IPR003626; PTH_related.
 PANTHER; PTHR17223; PTH_related; 1.
 Pfam; PF01279; Parathyroid; 1.
 ProDom; PD013225; PTH_related; 1.
 SMART; SM00087; PTH; 1.
 PROSITE; PS00335; PARATHYROID; 1.
 Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein; Signal.
 SIGNAL 1 24 Potential.
 PROPEP 25 34 By similarity.
 CHAIN 37 177 Parathyroid hormone-related protein.
 PEPTIDE 143 175 Osteostatin (By similarity).
 MOTIF 108 129 Nuclear localization signal (By similarity).
 SEQUENCE 177 AA; 20005 MW; E2D9F4327657B919 CRC64;

 Query Match 100.0%; Score 55; DB 1; Length 177;
 Best Local Similarity 100.0%; Pred. No. 0.039;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

 QY 1 FLHLIAEIH 10
 DB 59 FLHLIAEIH 68

 RESULT 14
 PTHR_RAT STANDARD; PRT; 177 AA.
 ID PTHR_RAT
 AC P13085;
 DT 01-JAN-1990 (Rel. 13, Created)
 DT 01-JAN-1990 (Rel. 13, Last sequence update)
 DT 10-MAY-2005 (Rel. 47, Last annotation update)
 DE Parathyroid hormone-related protein precursor (PTH-rP) (PLP)
 DE [Contains: Osteostatin].
 OS Rattus norvegicus (Rat).
 GN Name=Pthlh; Synonyms=Pthrp;
 GN Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89019361; PubMed=3175653;
 RA Thiede M.A., Rodan G.A.;
 RT "Expression of a calcium-mobilizing parathyroid hormone-like peptide in lactating mammary tissue.";
 RL Science 242:278-280 (1988).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89313794; PubMed=2747658;
 RA Yasuda T., Banville D., Rabbani S.A., Hendy G.N., Goltzman D.;
 RT "Rat parathyroid hormone-like peptide: comparison with the human homologue and expression in malignant and normal tissue.";
 RL Mol. Endocrinol. 3:518-525 (1989).
 RN [3]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=90258937; PubMed=2342478;
 RA Karaplis A.C., Yasuda T., Hendy G.N., Goltzman D., Banville D.;
 RT "Gene-encoding parathyroid hormone-like peptide: nucleotide sequence of the rat gene and comparison with the human homologue.";
 RL Mol. Endocrinol. 3:518-525 (1989).
 RN [4]

Mol. Endocrinol. 4:441-446 (1990).
 -1- FUNCTION: Neuroendocrine peptide which is a critical regulator of cellular and organ growth, development, migration, differentiation and survival and of epithelial calcium ion transport. Regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth (By similarity).
 -1- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone resorption (By similarity).
 -1- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted (By similarity).
 -1- PTM: There are several secretory forms, including osteostatin, arising from endoproteolytic cleavage of the initial translation product. Each of these secretory forms is believed to have one or more of its own receptors that mediates the normal paracrine, autocrine and endocrine actions (By similarity).
 -1- SIMILARITY: Belongs to the parathyroid hormone family.

 This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.

 EMBL; M21967; AAA41981.1; -; mRNA.
 EMBL; M31603; AAA41980.1; -; mRNA.
 EMBL; M34112; AAA41889.1; -; Genomic DNA.
 EMBL; M34108; AAA41889.1; JOINED; Genomic DNA.
 EMBL; M34111; AAA41889.1; JOINED; Genomic DNA.
 PIR; A34723; A30012.
 HSP; P12272; 1B2G.
 RGD; 3441; Pthlh.
 InterPro; IPR001415; Parathyroid hrm.
 InterPro; IPR003626; PTH_related.
 PANTHER; PTHR17223; PTH_related; 1.
 Pfam; PF01279; Parathyroid; 1.
 ProDom; PD013225; PTH_related; 1.
 SMART; SM00087; PTH; 1.
 PROSITE; PS00335; PARATHYROID; 1.
 Calcium; Cleavage on pair of basic residues; Hormone; Nuclear protein; Signal.
 SIGNAL 1 24 Potential.
 PROPEP 25 34
 CHAIN 37 177 Parathyroid hormone-related protein.
 PEPTIDE 143 175 Osteostatin (By similarity).
 MOTIF 108 129 Nuclear localization signal (By similarity).
 SEQUENCE 177 AA; 20204 MW; 11091EC48CA73B20 CRC64;

 Query Match 100.0%; Score 55; DB 1; Length 177;
 Best Local Similarity 100.0%; Pred. No. 0.039;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

 QY 1 FLHLIAEIH 10
 DB 59 FLHLIAEIH 68

 RESULT 15
 Q6FH74_HUMAN
 ID Q6FH74_HUMAN PRELIMINARY; PRT; 177 AA.
 AC Q6FH74;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DE PTHLH protein (Fragment).
 DE Name=PTHLH;
 GN Homo sapiens (Human).
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
 OC Homo.
 OX NCBI_TaxID=9606;
 RN [1]

RP NUCLEOTIDE SEQUENCE.
RA Halleck A., Ebert L., Moundinya M., Schick M., Eisenstein S.,
RA Neubert P., Kstrang K., Schatten R., Shen B., Henze S., Mar W.,
RA Korn B., Zuo D., Hu Y., LaBaer J.,
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR541892; CAG46680.1; -; mRNA.
FT NON_TER 177 177
SQ SEQUENCE 177 AA; 20194 MW; 449DFEE954C51DB CRC64;

Query Match 100.0%; Score 55; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
|||
Db 59 FLHHLIAEIH 68

Search completed: December 2, 2005, 23:19:36
Job time : 30.009 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:28:10 ; Search time 6.79775 Seconds
(without alignments)
121.622 Million cell updates/sec

Title: US-10-691-125-3
Perfect score: 55
Sequence: 1 FLHLLIAEIH 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	55	100.0	27	2	US-09-843-221A-73 Sequence 73, Appl
2	55	100.0	27	2	US-09-843-221A-74 Sequence 74, Appl
3	55	100.0	28	1	US-07-778-926-2 Sequence 2, Appl
4	55	100.0	28	2	US-09-228-990-77 Sequence 77, Appl
5	55	100.0	28	2	US-09-442-989-23 Sequence 23, Appl
6	55	100.0	28	2	US-09-843-221A-68 Sequence 68, Appl
7	55	100.0	28	2	US-09-843-221A-70 Sequence 70, Appl
8	55	100.0	28	2	US-09-843-221A-71 Sequence 71, Appl
9	55	100.0	28	2	US-09-843-221A-72 Sequence 72, Appl
10	55	100.0	28	2	US-09-843-221A-75 Sequence 75, Appl
11	55	100.0	28	2	US-09-843-221A-169 Sequence 169, App
12	55	100.0	28	2	US-09-623-548A-300 Sequence 300, App
13	55	100.0	28	2	US-09-623-548A-300 Sequence 300, App
14	55	100.0	28	2	US-09-657-276-300 Sequence 300, App
15	55	100.0	29	1	US-07-778-926-6 Sequence 6, Appl
16	55	100.0	29	1	US-08-305-799A-5 Sequence 5, Appl
17	55	100.0	30	1	US-07-778-926-10 Sequence 10, Appl
18	55	100.0	30	1	US-08-305-799A-3 Sequence 3, Appl
19	55	100.0	30	1	US-08-305-799A-4 Sequence 4, Appl
20	55	100.0	30	1	US-08-305-799A-6 Sequence 6, Appl
21	55	100.0	30	1	US-08-305-799A-7 Sequence 7, Appl
22	55	100.0	30	1	US-08-305-799A-8 Sequence 8, Appl
23	55	100.0	30	1	US-08-305-799A-9 Sequence 9, Appl
24	55	100.0	30	1	US-08-305-799A-10 Sequence 10, Appl
25	55	100.0	31	1	US-07-778-926-14 Sequence 14, Appl
26	55	100.0	32	1	US-07-778-926-3 Sequence 3, Appl
27	55	100.0	32	1	US-07-778-926-18 Sequence 18, Appl

28	55	100.0	32	1	US-08-305-799A-1 Sequence 1, Appl
29	55	100.0	32	1	US-08-305-799A-2 Sequence 2, Appl
30	55	100.0	33	1	US-07-778-926-7 Sequence 7, Appl
31	55	100.0	33	2	US-09-843-221A-67 Sequence 67, Appl
32	55	100.0	33	2	US-09-623-548A-296 Sequence 296, App
33	55	100.0	33	2	US-09-657-276-296 Sequence 296, App
34	55	100.0	34	1	US-07-778-926-11 Sequence 11, Appl
35	55	100.0	34	1	US-07-969-453-1 Sequence 1, Appl
36	55	100.0	34	1	US-07-915-247A-4 Sequence 4, Appl
37	55	100.0	34	1	US-08-443-863-4 Sequence 4, Appl
38	55	100.0	34	1	US-08-448-070-4 Sequence 4, Appl
39	55	100.0	34	1	US-08-449-500-4 Sequence 4, Appl
40	55	100.0	34	1	US-08-449-317A-4 Sequence 4, Appl
41	55	100.0	34	1	US-08-477-022-4 Sequence 4, Appl
42	55	100.0	34	1	US-08-449-447-4 Sequence 4, Appl
43	55	100.0	34	1	US-08-184-328-4 Sequence 4, Appl
44	55	100.0	34	1	US-08-521-097-4 Sequence 4, Appl
45	55	100.0	34	2	US-08-903-497A-7 Sequence 7, Appl

ALIGNMENTS

RESULT 1
US-09-843-221A-73
; Sequence 73, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENIUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843, 221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266, 673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214, 860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200, 053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 73
; LENGTH: 27
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PThrp
; NAME/KEY: misc feature
; LOCATION: (5)..(5)
; OTHER INFORMATION: D amino acid
US-09-843-221A-73

Query Match 100.0%; Score 55; DB 2; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.0047;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 16 FLHLLIAEIH 25

RESULT 2
US-09-843-221A-74
; Sequence 74, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENIUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

;; TITLE OF INVENTION: RELATED PROTEIN
;; FILE REFERENCE: A-665B
;; CURRENT APPLICATION NUMBER: US/09/843,221A
;; CURRENT FILING DATE: 2001-04-26
;; PRIOR APPLICATION NUMBER: 60/266,673
;; PRIOR FILING DATE: 2001-02-06
;; PRIOR APPLICATION NUMBER: 60/214,860
;; PRIOR FILING DATE: 2000-06-28
;; PRIOR APPLICATION NUMBER: 60/200,053
;; PRIOR FILING DATE: 2000-04-27
;; NUMBER OF SEQ ID NOS: 170
;; SOFTWARE: PatentIn version 3.1
;; SEQ ID NO 74
;; LENGTH: 27
;; TYPE: PRT
;; ORGANISM: Artificial Sequence
;; FEATURE:
;; OTHER INFORMATION: modified PThrp
;; NAME/KEY: misc feature
;; LOCATION: (5)_(5)
;; OTHER INFORMATION: D amino acid
;;
US-09-843-221A-74

Query Match 100.0%; Score 55; DB 2; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.0047;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 16 FLHLLIAEIH 25

RESULT 3

US-07-778-926-2
; Sequence 2, Application US/07778926
; Patent No. 5252705
; GENERAL INFORMATION:
; APPLICANT: Tatsuhiko KANWERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: DisplayWrite
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 28 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear

;; MOLECULE TYPE:
;; HYPOTHETICAL:
;; ANTI-SENSE:
;; FRAGMENT TYPE:
;; ORIGINAL SOURCE:
;; ORGANISM:
;; STRAIN:
;; INDIVIDUAL ISOLATE:
;; DEVELOPMENTAL STAGE:
;; HAPLOTYPE:
;; TISSUE TYPE:
;; CELL TYPE:
;; CELL LINE:
;; ORGANELLE:
;; IMMEDIATE SOURCE:
;; LIBRARY:
;; CLONE:
;; POSITION IN GENOME:
;; CHROMOSOME/SEGMENT:
;; MAP POSITION:
;; UNITS:
;; FEATURE:
;; NAME/KEY: modified-site
;; LOCATION: 28
;; IDENTIFICATION METHOD:
;; OTHER INFORMATION: /note= "Ala-OH or
;; OTHER INFORMATION: Ala-NH2"
;; PUBLICATION INFORMATION:
;; AUTHORS:
;; TITLE:
;; JOURNAL:
;; VOLUME:
;; ISSUE:
;; PAGES:
;; DATE:
;; DOCUMENT NUMBER:
;; FILING DATE:
;; PUBLICATION DATE:
;; RELEVANT RESIDUES IN SEQ ID NO:
US-07-778-926-2

Query Match 100.0%; Score 55; DB 1; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
Db 17 FLHLLIAEIH 26

RESULT 4
US-09-228-990-77
; Sequence 77, Application US/09228990
; Patent No. 6472505
; GENERAL INFORMATION:
; APPLICANT: Condon, Stephen M.
; APPLICANT: Morize, Isabelle
; TITLE OF INVENTION: PEPTIDE PARATHYROID HORMONE ANALOGS
; NUMBER OF SEQUENCES: 88
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, Mailstop 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19426
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/228,990

1 FILING DATE:
2 CLASSIFICATION:
3 PRIOR APPLICATION DATA:
4 APPLICATION NUMBER: US 60/046,472
5 FILING DATE: 14-MAY-1997
6 ATTORNEY/AGENT INFORMATION:
7 NAME: Martin Esq., Michael B.
8 REGISTRATION NUMBER: 37,521
9 REFERENCE/DOCKET NUMBER: A2678B-WO
10 TELECOMMUNICATION INFORMATION:
11 TELEPHONE: (610) 454-2793
12 TELEFAX: (610) 454-3808
13 INFORMATION FOR SEQ ID NO: 77:
14 SEQUENCE CHARACTERISTICS:
15 LENGTH: 28 amino acids
16 TYPE: amino acid
17 STRANDEDNESS:
18 TOPOLOGY: not relevant
19 MOLECULE TYPE: peptide
20 FRAGMENT TYPE: N-terminal
21 FEATURE:
22 NAME/KEY: Peptide
23 LOCATION: 12..16
24 OTHER INFORMATION: /product= "OTHER"
25 OTHER INFORMATION: /note= "The side chains of Lys at position 12 and Asp at
26 position 16 are linked by an amide bond."
27 FEATURE:
28 NAME/KEY: Peptide
29 LOCATION: 28
30 OTHER INFORMATION: /product= "OTHER"
31 OTHER INFORMATION: /note= "This C-terminal amino acid is an amide, i.e., CONH2."
32 US-09-228-990-77

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 5
US-09-442-989-23
1 Sequence 23, Application US/09442989
2 Patent No. 6569993
3 GENERAL INFORMATION:
4 APPLICANT: Sledeski, Adam W.
5 APPLICANT: Mencel, James J.
6 TITLE OF INVENTION: PROCESS FOR THE PREPARATION OF RESIN-BOUND CYCLIC
7 PEPTIDES
8 FILE REFERENCE: A3113B-US
9 CURRENT APPLICATION NUMBER: US/09/442,989
10 CURRENT FILING DATE: 1999-11-18
11 EARLIER APPLICATION NUMBER: 60/081,897
12 EARLIER FILING DATE: 1998-04-15
13 NUMBER OF SEQ ID NOS: 46
14 SOFTWARE: PatentIn Ver. 2.1
15 SEQ ID NO 23
16 LENGTH: 28
17 TYPE: PRT
18 ORGANISM: Artificial Sequence
19 FEATURE:
20 NAME/KEY: PEPTIDE
21 LOCATION: (12)..(16)
22 OTHER INFORMATION: "Synthetic Peptide: The side chains of Lys at
23 position 12 and Asp at position 16 are linked by
24 an amide bond."
25 FEATURE:
26 NAME/KEY: PEPTIDE
27 LOCATION: (28)
28 OTHER INFORMATION: "This C-terminal amino acid is an amide, i.e.,
29 CONH2."
30 OTHER INFORMATION:

US-09-442-989-23

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 6

US-09-843-221A-68
1 Sequence 68, Application US/09843221A
2 Patent No. 6756480
3 GENERAL INFORMATION:
4 APPLICANT: KOSTENIUK, PAUL
5 APPLICANT: LIU, CHUAN-FA
6 APPLICANT: LACEY, DAVID LEE
7 TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
8 TITLE OF INVENTION: RELATED PROTEIN
9 FILE REFERENCE: A-665B
10 CURRENT APPLICATION NUMBER: US/09/843,221A
11 CURRENT FILING DATE: 2001-04-26
12 PRIOR APPLICATION NUMBER: 60/266,673
13 PRIOR FILING DATE: 2001-02-06
14 PRIOR APPLICATION NUMBER: 60/214,860
15 PRIOR FILING DATE: 2000-06-28
16 PRIOR APPLICATION NUMBER: 60/200,053
17 PRIOR FILING DATE: 2000-04-27
18 NUMBER OF SEQ ID NOS: 170
19 SOFTWARE: PatentIn version 3.1
20 SEQ ID NO 68
21 LENGTH: 28
22 TYPE: PRT
23 ORGANISM: Homo sapiens
24 US-09-843-221A-68

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 7

US-09-843-221A-69
1 Sequence 69, Application US/09843221A
2 Patent No. 6756480
3 GENERAL INFORMATION:
4 APPLICANT: KOSTENIUK, PAUL
5 APPLICANT: LIU, CHUAN-FA
6 APPLICANT: LACEY, DAVID LEE
7 TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
8 TITLE OF INVENTION: RELATED PROTEIN
9 FILE REFERENCE: A-665B
10 CURRENT APPLICATION NUMBER: US/09/843,221A
11 CURRENT FILING DATE: 2001-04-26
12 PRIOR APPLICATION NUMBER: 60/266,673
13 PRIOR FILING DATE: 2001-02-06
14 PRIOR APPLICATION NUMBER: 60/214,860
15 PRIOR FILING DATE: 2000-06-28
16 PRIOR APPLICATION NUMBER: 60/200,053
17 PRIOR FILING DATE: 2000-04-27
18 NUMBER OF SEQ ID NOS: 170
19 SOFTWARE: PatentIn version 3.1
20 SEQ ID NO 69
21 LENGTH: 28
22 TYPE: PRT
23 ORGANISM: Artificial Sequence
24 FEATURE:

; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-69

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
|||||

Db 17 FLHHLIAEIH 26

RESULT 8

US-09-843-221A-70
; Sequence 70, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 70
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
US-09-843-221A-70

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
|||||

Db 17 FLHHLIAEIH 26

RESULT 9

US-09-843-221A-71
; Sequence 71, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 71
; LENGTH: 28

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
; NAME/KEY: misc_feature
; LOCATION: (6)..(6)
; OTHER INFORMATION: D amino acid
US-09-843-221A-71

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
|||||

Db 17 FLHHLIAEIH 26

RESULT 10

US-09-843-221A-72
; Sequence 72, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 72
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
; NAME/KEY: misc_feature
; LOCATION: (6)..(6)
; OTHER INFORMATION: D amino acid
US-09-843-221A-72

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHHLIAEIH 10
|||||

Db 17 FLHHLIAEIH 26

RESULT 11

US-09-843-221A-75
; Sequence 75, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 75
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
; NAME/KEY: misc feature
; LOCATION: (6)-(6)
; OTHER INFORMATION: D amino acid
; US-09-843-221A-75

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 12

US-09-843-221A-169
; Sequence 169, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENIUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 169
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Preferred embodiments - PTHrP
; NAME/KEY: misc feature
; LOCATION: (28)-(28)
; OTHER INFORMATION: Optional linker and Fc domain attached at the C-terminus
; US-09-843-221A-169

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 13

US-09-623-548A-300
; Sequence 300, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:

; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 300
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
; US-09-623-548A-300

Query Match 100.0%; Score 55; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 14

US-09-657-276-300
; Sequence 300, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 300
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
; US-09-657-276-300

Query Match 100.0%; Score 55; DB 2; Length 28;

```
Best Local Similarity 100.0%; Pred. No. 0.0048;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 15
US-07-778-926-6
; Sequence 6, Application US/07778926
; Patent No. 5252705
; GENERAL INFORMATION:
; APPLICANT: Tatsuhiro KANMERA et al.
; TITLE OF INVENTION: Peptide Derivatives
; NUMBER OF SEQUENCES: 21
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Wenderoth, Lind & Ponack
; STREET: 805 Fifteenth Street, N.W., #700
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 500 Kb
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Displaywrite
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07778,926
; FILING DATE: 19911211
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warren M. Cheek Jr.
; REGISTRATION NUMBER: 33,367
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-8850
; TELEFAX:
; TELEX:
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 29 amino acid residues
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE:
; HYPOTHEetical:
; ANTI-SENSE:
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
; ORGANISM:
; STRAIN:
; INDIVIDUAL ISOLATE:
; DEVELOPMENTAL STAGE:
; HAPLOTYPE:
; TISSUE TYPE:
; CELL TYPE:
; CELL LINE:
; ORGANELLE:
; IMMEDIATE SOURCE:
; LIBRARY:
; CLONE:
; POSITION IN GENOME:
; CHROMOSOME/SEGMENT:
; MAP POSITION:
; UNITS:
; FEATURE:
; NAME/KEY: modified-site
; LOCATION: 29

; IDENTIFICATION METHOD:
; OTHER INFORMATION: ./note= "Ala-OH or
; OTHER INFORMATION: Ala-NH2"
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; DOCUMENT NUMBER:
; FILING DATE:
; PUBLICATION DATE:
; RELEVANT RESIDUES IN SEQ ID NO:
; US-07-778-926-6

Query Match 100.0%; Score 55; DB 1; Length 29;
Best Local Similarity 100.0%; Pred. No. 0.005;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 18 FLHHLIAEIH 27

Search completed: December 2, 2005, 22:38:22
Job time : 7.79775 secs
```

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:03:56 ; Search time 24.8764 Seconds
(without alignments)
158.962 Million cell updates/sec

Title: US-10-691-125-4

Perfect score: 50

Sequence: 1 WLDSGVTVGS 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A Geneseq 21.*

- 1: geneseqp1980s.*
- 2: geneseqp1990s.*
- 3: geneseqp2000s.*
- 4: geneseqp2001s.*
- 5: geneseqp2002s.*
- 6: geneseqp2003as.*
- 7: geneseqp2003bs.*
- 8: geneseqp2004s.*
- 9: geneseqp2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	50	100.0	9	ADW99593	Adw99593 Human par
2	50	100.0	21	AAU77909	Aau77909 Human PTH
3	50	100.0	23	ADK98650	Adk98650 Parathyro
4	50	100.0	24	ADK98651	Adk98651 Parathyro
5	50	100.0	32	AA91131	Aab91131 Parathyro
6	50	100.0	33	AA91132	Aab91132 Parathyro
7	50	100.0	33	AAU77907	Aau77907 Human PTH
8	50	100.0	33	ADK98655	Adk98655 Parathyro
9	50	100.0	33	ADK98654	Adk98654 Parathyro
10	50	100.0	33	ADK98658	Adk98658 Human par
11	50	100.0	33	ADK98656	Adk98656 Parathyro
12	50	100.0	34	AA226411	Aar226411 C-termina
13	50	100.0	56	AA41539	Aar41539 Synthetic
14	50	100.0	79	AA06980	Aar06980 PTHrP (B)
15	50	100.0	133	AAE23744	Aae23744 Human par
16	50	100.0	135	AAE23745	Aae23745 Human par
17	50	100.0	139	AA014630	Aa014630 Human PTH
18	50	100.0	139	AB044991	Ab044991 Human par
19	50	100.0	139	AAE23750	Aae23750 Human par
20	50	100.0	139	ADP04402	Adp04402 Human par
21	50	100.0	141	AAW99452	Aaw99452 Human par
22	50	100.0	141	AA014631	Aa014631 Human PTH
23	50	100.0	141	AB044992	Ab044992 Human par
24	50	100.0	141	AAE23749	Aae23749 Human par

25	50	100.0	141	8	ADP04403	Adp04403 Human par
26	50	100.0	141	9	ADW99590	Adw99590 Human par
27	50	100.0	173	5	AA014632	Aa014632 Human PTH
28	50	100.0	173	5	ABB04993	Abb04993 Human par
29	50	100.0	173	5	ADP04404	Adp04404 Human par
30	50	100.0	173	6	ABU56498	Abu56498 Lung canc
31	50	100.0	175	6	ABU56578	Abu56578 Lung canc
32	50	100.0	175	6	ABR92141	AbR92141 Human cer
33	50	100.0	175	8	ADJ36543	Adj36543 Human pro
34	50	100.0	175	8	ADK98647	Adk98647 Human par
35	50	100.0	175	8	ADU06427	Adu06427 Novel bro
36	50	100.0	177	1	AA080303	Aap80303 Sequence
37	50	100.0	177	1	AA080304	Aap80304 Sequence
38	50	100.0	177	2	AAW12724	Aaw12724 PTH-like
39	50	100.0	177	2	AAW11037	Aaw11037 Human lun
40	50	100.0	177	2	AAW11038	Aaw11038 Human lun
41	50	100.0	177	3	AAW11323	Aab11323 Human lun
42	50	100.0	177	3	AAW11322	Ab11322 Human lun
43	50	100.0	177	5	ABB74954	Abb74954 Human lun
44	50	100.0	177	5	ABB74955	Abb74955 Human lun
45	50	100.0	177	5	ABP61874	Abp61874 Human lun

ALIGNMENTS

RESULT 1
ADW99593
ID ADW99593 standard; peptide; 9 AA.
XX
AC ADW99593;
XX
DT 21-APR-2005 (first entry)
XX
DE Human parathyroid hormone-related peptide PTR-3.
XX
KW recombinant protein; cytostatic; vaccine; immune stimulation;
KW immunostimulatory; parathyroid hormone related peptide; tumor;
KW metastasis.
XX
OS Homo sapiens.
XX
PN US2005033023-A1.
XX
PD 10-FEB-2005.
XX
PF 21-OCT-2003; 2003US-00691125.
XX
PR 21-OCT-2002; 2002US-0420165P.
XX
PA (CORR/) CORREALE P.
XX (CUI/) CUI M G.
XX (FRAN/) FRANCINI G.
XX
PI Correale P, Cusi MG, Francini G;
XX
DR WPI; 2005-151693/16.
XX
PT Novel isolated immunostimulatory parathyroid hormone related peptide (PTH
PT -rP), useful for immunizing and treating subjects against metastases and
tumors.
XX
PS Claim 2; SEQ ID NO 4; 35pp; English.
XX
CC The invention relates to an isolated immunostimulatory parathyroid
CC hormone related peptide (PTH-rP) (I) comprising a fragment of the amino
CC acid sequence of a fully defined sequence (S1) of 141 amino acids as
CC given in the specification, or its functional variant comprising one or
CC more amino acid additions, substitution or deletions. (I) is useful for
CC generating T cells active against PTH-rP expressing tumors and
CC metastasis, which involves stimulating T cells in the presence of antigen
CC presenting cells that have been exposed to (I). The antigen presenting
CC cells have been infected with virosmes containing PTH-rP plasmids,

CC virosomes encapsulating (I) or virosomes comprising (I) crosslinked to
CC its surface. (II) is useful for generating a T cell response specific for
CC PTH-rp, which involves immunizing a subject with (I). The protein, an
CC epitope from it, DNA encoding it, vectors and host cells are useful for
CC inducing an immune response against PTH-rp expressing tumors and
CC metastasis, by immunization. They are useful for treating PTH-rp
CC expressing tumors and metastasis, immunizing a subject against metastasis
CC and tumors or for preventing the occurrence or recurrence of PTH-rp
CC expressing tumors and metastasis. This sequence corresponds to a peptide
CC from the human PTH-rp protein.

XX SQ Sequence 9 AA;

Query Match 100.0%; Score 50; DB 9; Length 9;
Best Local Similarity 100.0%; Pred. No. 2e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | | | | | |
Db 1 WLDGVTGS 9

RESULT 2

AAU77909
ID AAU77909 standard; peptide; 21 AA.

XX AC AAU77909;

XX DT 05-JUN-2002 (first entry)

XX DE Human PTHrP fragment (residues 107-127) resulting from secPHEX cleavage.

XX KW Human; bone-related disorder; osteogenesis; secPHEX; endopeptidase;
KW phosphate regulating gene; osteocalcin; teeth; bone mass; bone growth;
KW osteopenia; osteoporosis; rickets; X-linked hypophosphataemic rickets;
KW orthopaedic; osteopathic; dental intervention; PTHrP.

XX OS Homo sapiens.

XX FN WO200215918-A2.

XX PD 28-FEB-2002.

XX PF 23-AUG-2001; 2001WO-CA001220.

XX PR 23-AUG-2000; 2000US-0227012P.

XX PA (UYMO-) UNIV MONTREAL.

XX PI Boileau G;

XX DR WPI; 2002-280858/32.

XX PT Preventing or treating bone-related disorder or condition requiring
PT osteogenesis in mammals, by administering secPHEX or its mutant, a
PT substance that binds to osteocalcin or antibody specific to osteocalcin.

XX PS Disclosure; Fig 4; 52pp; English.

XX CC The present invention relates to a method for preventing or treating a
CC bone-related disorder or condition that involves osteogenesis in mammals.
CC The method comprises administering secPHEX (a phosphate regulating gene
CC with homologues to Endopeptidases on the X chromosome), secPHEX551V, a
CC substance capable of binding to osteocalcin, or an antibody specific to
CC osteocalcin. PHEX activity can be increased by inhibiting osteocalcin.
CC Since PHEX is generally associated with the growth plane of bone or teeth
CC and the absence of osteocalcin with increased bone mass, potentiation of
CC PHEX activity can promote bone growth. The invention also provides
CC several new substrates for measuring PHEX enzyme activity. The method of
CC the invention is useful for preventing or treating bone-related
CC disorders, such as osteopenia, osteoporosis, rickets, X-linked
CC hypophosphataemic rickets, and conditions such as orthopaedic and dental
CC intervention. The present peptide sequence represents a human PTHrP

CC fragment resulting from secPHEX cleavage

XX SQ Sequence 21 AA;

Query Match 100.0%; Score 50; DB 5; Length 21;
Best Local Similarity 100.0%; Pred. No. 0.054;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | | | | | |
Db 5 WLDGVTGS 13

RESULT 3

ADK98650
ID ADK98650 standard; peptide; 23 AA.

XX AC ADK98650;

XX DT 20-MAY-2004 (first entry)

XX DE Parathyroid hormone related protein (PTHrP) related peptide seqid 6.

XX KW cytostatic; antiasthmatic; hypotensive; hepatotropic;
KW antiarteriosclerotic; uropathic; vasotropic;
KW parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
KW retinoblastoma; p27kip1;
KW smooth muscle cell proliferation-associated disorder;
KW uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
KW portal hypertension; cirrhosis; pulmonary arterial hypertension;
KW systemic arterial hypertension; atherosclerosis; bladder disease;
KW vascular restenosis; angioplasty.

XX OS Homo sapiens.

XX FN WO2004016151-A2.

XX PD 26-FEB-2004.

XX PF 13-AUG-2003; 2003WO-US025473.

XX PR 15-AUG-2002; 2002US-0403805P.

XX PA (OSTE-) OSTROTROPHIN LLC.

XX PI Stewart AF, Fiaschi-Taesch N;

XX DR WPI; 2004-192051/18.

XX PT New compound comprising a parathyroid hormone-related protein (PTHrP)
PT mutant polypeptide, useful for treating or preventing smooth muscle cell
PT proliferation-associated disorders, such as atherosclerosis or bronchial
PT asthma.

XX PS Claim 46; SEQ ID NO 6; 100pp; English.

XX CC The invention describes a compound comprising a parathyroid hormone-
CC related protein (PTHrP) mutant polypeptide (I). (I) has the following
CC characteristics: the compound lacks a functional nuclear localisation
CC signal, or has a functional nuclear localisation signal and one or more
CC modified amino acids in the region of PTHrP(112-139); overexpressing the
CC compound in a vascular smooth muscle cell decreases the level of
CC phosphorylated immunoreactive retinoblastoma polypeptide compared to the
CC level of phosphorylated immunoreactive retinoblastoma polypeptide
CC observed in the absence of the compound; and overexpressing the compound
CC in a vascular smooth muscle cell increases the level of immunoreactive
CC p27kip1 polypeptide compared to the level of immunoreactive p27kip1
CC polypeptide observed in the absence of the compound. (I) is useful for
CC treating or preventing a smooth muscle cell proliferation-associated
CC disorder, particularly in humans, such as uterine fibroid tumours,
CC prostatic hypertrophy, bronchial asthma, portal hypertension in
CC cirrhosis, pulmonary arterial hypertension, systemic arterial
CC hypertension, atherosclerosis, bladder disease, and vascular restenosis

CC after angioplasty. (I) is also useful in the manufacture of a medicament
CC for treating smooth muscle cell proliferation-associated disorders. This
CC is the amino acid sequence of human parathyroid hormone related protein
CC (PTHrP) residues 121-130 that can be deleted from human PTHrP in the
CC creation of a mutant of the invention.

XX Sequence 23 AA;

Query Match 100.0%; Score 50; DB 8; Length 23;
Best Local Similarity 100.0%; Pred. No. 0.06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | |
Db 5 WLDGVTGS 13

RESULT 4

ID ADK98651 standard; peptide; 24 AA.

XX ADK98651;

DT 20-MAY-2004 (first entry)

DE Parathyroid hormone related protein (PTHrP) related peptide seqid 7.

DE cytotatic; antiasthmatic; hypotensive; hepatotropic;

KW antiarteriosclerotic; uropathic; vasotropic;

KW parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;

KW retinoblastoma; p27kip1;

KW smooth muscle cell proliferation-associated disorder;

KW uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;

KW portal hypertension; cirrhosis; pulmonary arterial hypertension;

KW systemic arterial hypertension; atherosclerosis; bladder disease;

KW vascular restenosis; angioplasty.

XX Homo sapiens.

OS WO2004016151-A2.

PN 26-FEB-2004.

PD 13-AUG-2003; 2003WO-US025473.

PF 15-AUG-2002; 2002US-0403805P.

PR (OSTE-) OSTEOTROPHIN LLC.

XX Stewart AF, Fiaschi-Taesch N;

PI WPI; 2004-192051/18.

DR New compound comprising a parathyroid hormone-related protein (PTHrP)

XX mutant polypeptide, useful for treating or preventing smooth muscle cell

XX proliferation-associated disorders, such as atherosclerosis or bronchial

XX asthma.

PS Claim 46; SEQ ID NO 7; 100pp; English.

XX The invention describes a compound comprising a parathyroid hormone-

XX related protein (PTHrP) mutant polypeptide (I). (I) has the following

XX characteristics: the compound lacks a functional nuclear localisation

XX signal, or has a functional nuclear localisation signal and one or more

XX modified amino acids in the region of PTHrP(112-139); overexpressing the

XX compound in a vascular smooth muscle cell decreases the level of

XX phosphorylated immunoreactive retinoblastoma polypeptide compared to the

XX level of phosphorylated immunoreactive retinoblastoma polypeptide

XX observed in the absence of the compound; and overexpressing the compound

XX in a vascular smooth muscle cell increases the level of immunoreactive

XX p27kip1 polypeptide compared to the level of immunoreactive p27kip1

XX polypeptide observed in the absence of the compound. (I) is useful for

XX treating or preventing a smooth muscle cell proliferation-associated

CC disorder, particularly in humans, such as uterine fibroid tumours,
CC prostatic hypertrophy, bronchial asthma, portal hypertension in
CC cirrhosis, pulmonary arterial hypertension, systemic arterial
CC hypertension, atherosclerosis, bladder disease, and vascular restenosis
CC after angioplasty. (I) is also useful in the manufacture of a medicament
CC for treating smooth muscle cell proliferation-associated disorders. This
CC is the amino acid sequence of human parathyroid hormone related protein
CC (PTHrP) residues 131-139 that can be deleted from human PTHrP in the
CC creation of a mutant of the invention.

XX Sequence 24 AA;

Query Match 100.0%; Score 50; DB 8; Length 24;
Best Local Similarity 100.0%; Pred. No. 0.062;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | |
Db 5 WLDGVTGS 13

RESULT 5

ID AAB91131 standard; peptide; 32 AA.

XX AAB91131;

DT 22-JUN-2001 (first entry)

DE Parathyroid hormone related protein (PTHrP) peptide SEQ ID NO:305.

KW Protection; endogenous therapeutic peptide; peptidase; conjugation;

KW blood component; modification; succinimidy1; maleimido group; amino;

KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX Homo sapiens.

OS Synthetic.

PN WO200069900-A2.

PD 23-NOV-2000.

PF 17-MAY-2000; 2000WO-US013576.

PR 17-MAY-1999; 99US-0134406P.

PR 10-SEP-1999; 99US-0153406P.

PR 15-OCT-1999; 99US-0159783P.

XX (CONJ-) CONJUCHEM INC.

XX Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;

XX WPI; 2001-112059/12.

XX Modifying and attaching therapeutic peptides to albumin prevents

XX peptidase degradation, useful for increasing length of in vivo activity.

XX Disclosure; Page 293-294; 733pp; English.

XX The present invention describes a modified therapeutic peptide (I)

XX comprising a therapeutically active amino acid region (iii) and a

XX reactive group (ii) (e.g. succinimidy1 and maleimido groups) attached to

XX a less therapeutically active amino acid region (iv), which covalently

XX bonds with amino/hydroxyl/thiol groups on blood components to form a

XX peptidase stabilised therapeutic peptide composed of 3-50 amino acids.

XX (I) are useful for modifying therapeutic peptides e.g. hormones, growth

XX factors and neurotransmitters, to protect them from peptidase activity in

XX vivo for the treatment of various disorders. Endogenous therapeutic

XX peptides are not suitable as drug candidates as they require frequent

XX administration due to rapid degradation by peptidases in the body.

XX Modifying and attaching therapeutic peptides to albumin prevents or

XX reduces the action of peptidases to increase length of activity (half

XX life) and specificity as bonding to large molecules decreases

CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention

XX SQ Sequence 32 AA;

Query Match 100.0%; Score 50; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.085;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 WLDGVTGS 9
| | | | | | | | |
Db 5 WLDGVTGS 13

RESULT 6
ID AAB91132 standard; peptide; 33 AA.
XX AC AAB91132;
XX DT 22-JUN-2001 (first entry)
XX DE Parathyroid hormone related protein (PTHrP) peptide SEQ ID NO:306.
XX KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
XX KW blood component; modification; succinimidy; maleimido group; amino;
XX KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX OS Homo sapiens.
XX OS Synthetic.
XX PN WO200069900-A2.
XX PD 23-NOV-2000.
XX PF 17-MAY-2000; 2000WO-US013576.
XX PR 17-MAY-1999; 99US-0134406P.
XX PR 10-SEP-1999; 99US-0153406P.
XX PR 15-OCT-1999; 99US-0159783P.
XX PA (CONJ-) CONJUCHEM INC.
XX PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX WPI; 2001-112059/12.
XX DR Modifying and attaching therapeutic peptides to albumin prevents
XX PT peptidase degradation, useful for increasing length of in vivo activity.
XX FS Disclosure; Page 294; 733pp; English.
XX CC The present invention describes a modified therapeutic peptide (I)
XX CC comprising a therapeutically active amino acid region (III) and a
XX CC reactive group (II) (e.g. succinimidy and maleimido groups) attached to
XX CC bonds with amino/hydroxyl/thiol groups on blood components to form a
XX CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
XX CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
XX CC factors and neurotransmitters, to protect them from peptidase activity in
XX CC vivo for the treatment of various disorders. Endogenous therapeutic
XX CC peptides are not suitable as drug candidates as they require frequent
XX CC administration due to rapid degradation by peptidases in the body.
XX CC Modifying and attaching therapeutic peptides to albumin prevents or
XX CC reduces the action of peptidases to increase length of activity (half
XX CC life) and specificity as bonding to large molecules decreases
XX CC intracellular uptake and interference with physiological processes.
XX CC AAB90829 to AAB92441 represent peptides which can be used in the
XX CC exemplification of the present invention

XX SQ Sequence 33 AA;

Query Match 100.0%; Score 50; DB 4; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.088;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 WLDGVTGS 9
| | | | | | | | |
Db 3 WLDGVTGS 11

RESULT 7
AAU77907
ID AAU77907 standard; peptide; 33 AA.
XX AC AAU77907;
XX DT 05-JUN-2002 (first entry)
XX DE Human PTHrP residues 107-139, useful as PHEX substrate.
XX KW Human; bone-related disorder; osteogenesis; secPHEX; endopeptidase;
XX KW phosphate regulating gene; osteocalcin; teeth; bone mass; bone growth;
XX KW osteopenia; osteoporosis; rickets; X-linked hypophosphataemic rickets;
XX KW orthopaedic; osteopathic; dental intervention; PTHrP; PHEX substrate.
XX OS Homo sapiens.
XX FH Key Location/Qualifiers
XX FT Cleavage-site 6..7 /label= secPHEX_cleavage_site
XX FT Cleavage-site 21..22 /label= secPHEX_cleavage_site
XX FT Cleavage-site 30..31 /label= secPHEX_cleavage_site
XX PN WO200215918-A2.
XX PD 28-FEB-2002.
XX PF 23-AUG-2001; 2001WO-CA001220.
XX PR 23-AUG-2000; 2000US-0227012P.
XX PA (UYMO-) UNIV MONTREAL.
XX PI Boileau G;
XX WPI; 2002-280858/32.
XX DR Preventing or treating bone-related disorder or condition requiring
XX PT osteogenesis in mammals, by administering secPHEX or its mutant, a
XX PT substance that binds to osteocalcin or antibody specific to osteocalcin.
XX FS Disclosure; Fig 4; 52pp; English.
XX CC The present invention relates to a method for preventing or treating a
XX CC bone-related disorder or condition that involves osteogenesis in mammals.
XX CC The method comprises administering secPHEX (a phosphate regulating gene
XX CC with homologues to Endopeptidases on the X chromosome), secPHEX581v, a
XX CC substance capable of binding to osteocalcin, or an antibody specific to
XX CC osteocalcin. PHEX activity can be increased by inhibiting osteocalcin.
XX CC Since PHEX is generally associated with the growth plane of bone or teeth
XX CC and the absence of osteocalcin with increased bone mass, potentiation of
XX CC PHEX activity can promote bone growth. The invention also provides
XX CC several new substrates for measuring PHEX enzyme activity. The method of
XX CC the invention is useful for preventing or treating bone-related
XX CC disorders, such as osteopenia, osteoporosis, rickets, X-linked
XX CC hypophosphataemic rickets, and conditions such as orthopaedic and dental
XX CC intervention. The present peptide sequence representing human PTHrP
XX CC residues 107-139 is useful as a PHEX substrate

XX SQ Sequence 33 AA;

Query Match 100.0%; Score 50; DB 5; Length 33;

Best Local Similarity 100.0%; Pred. No. 0.088;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGSGVTGS 9
|||||||
Db 5 WLDGSGVTGS 13

RESULT 8
ADK98655
ID ADK98655 standard; peptide; 33 AA.
XX AC ADK98655;
XX DT 20-MAY-2004 (first entry)
XX DE Parathyroid hormone related protein (PTHrP) related peptide seqid 11.
XX cytotatic; antiasthmatic; hypotensive; hepatotropic;
KW antiarteriosclerotic; uropathic; vasotropic;
KW parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
KW retinoblastoma; p27kip1;
KW smooth muscle cell proliferation-associated disorder;
KW uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
KW portal hypertension; cirrhosis; pulmonary arterial hypertension;
KW systemic arterial hypertension; atherosclerosis; bladder disease;
KW vascular restenosis; angioplasty.
XX OS Homo sapiens.
XX PN WO2004016151-A2.
XX PD 26-FEB-2004.
XX PF 13-AUG-2003; 2003WO-US025473.
XX PR 15-AUG-2002; 2002US-0403805P.
XX PA (OSTE-) OSTEOTROPHIN LLC.
XX PI Stewart AF, Fiaschi-Taesch N;
XX WPI; 2004-192051/18.
XX New compound comprising a parathyroid hormone-related protein (PTHrP)
PT mutant polypeptide, useful for treating or preventing smooth muscle cell
PT proliferation-associated disorders, such as atherosclerosis or bronchial
PT asthma.
XX Claim 46; SEQ ID NO 11; 100pp; English.
XX The invention describes a compound comprising a parathyroid hormone-
CC related protein (PTHrP) mutant polypeptide (I). (I) has the following
CC characteristics: the compound lacks a functional nuclear localisation
CC signal, or has a functional nuclear localisation signal and one or more
CC modified amino acids in the region of PTHrP(112-139); overexpressing the
CC compound in a vascular smooth muscle cell decreases the level of
CC phosphorylated immunoreactive retinoblastoma polypeptide compared to the
CC level of phosphorylated immunoreactive retinoblastoma polypeptide
CC observed in the absence of the compound; and overexpressing the compound
CC in a vascular smooth muscle cell increases the level of immunoreactive
CC p27kip1 polypeptide compared to the level of immunoreactive p27kip1
CC polypeptide observed in the absence of the compound. (I) is useful for
CC treating or preventing a smooth muscle cell proliferation-associated
CC disorder, particularly in humans, such as uterine fibroid tumours,
CC prostatic hypertrophy, bronchial asthma, portal hypertension in
CC cirrhosis, pulmonary arterial hypertension, systemic arterial
CC hypertension, atherosclerosis, bladder disease, and vascular restenosis
CC after angioplasty. (I) is also useful in the manufacture of a medicament
CC for treating smooth muscle cell proliferation-associated disorders. This
CC is the amino acid sequence of a human parathyroid hormone related protein
CC (PTHrP) peptide comprising substitutions that can be introduced to the
CC PTHrP mutant of the invention.

XX SQ Sequence 33 AA;
Query Match 100.0%; Score 50; DB 8; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.088;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGSGVTGS 9
|||||||
Db 5 WLDGSGVTGS 13

RESULT 9
ADK98654
ID ADK98654 standard; peptide; 33 AA.
XX AC ADK98654;
XX DT 20-MAY-2004 (first entry)
XX DE Parathyroid hormone related protein (PTHrP) related peptide seqid 10.
XX cytotatic; antiasthmatic; hypotensive; hepatotropic;
KW antiarteriosclerotic; uropathic; vasotropic;
KW parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
KW retinoblastoma; p27kip1;
KW smooth muscle cell proliferation-associated disorder;
KW uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
KW portal hypertension; cirrhosis; pulmonary arterial hypertension;
KW systemic arterial hypertension; atherosclerosis; bladder disease;
KW vascular restenosis; angioplasty.
XX OS Homo sapiens.
XX PN WO2004016151-A2.
XX PD 26-FEB-2004.
XX PF 13-AUG-2003; 2003WO-US025473.
XX PR 15-AUG-2002; 2002US-0403805P.
XX PA (OSTE-) OSTEOTROPHIN LLC.
XX PI Stewart AF, Fiaschi-Taesch N;
XX WPI; 2004-192051/18.
XX New compound comprising a parathyroid hormone-related protein (PTHrP)
PT mutant polypeptide, useful for treating or preventing smooth muscle cell
PT proliferation-associated disorders, such as atherosclerosis or bronchial
PT asthma.
XX Claim 46; SEQ ID NO 10; 100pp; English.
XX The invention describes a compound comprising a parathyroid hormone-
CC related protein (PTHrP) mutant polypeptide (I). (I) has the following
CC characteristics: the compound lacks a functional nuclear localisation
CC signal, or has a functional nuclear localisation signal and one or more
CC modified amino acids in the region of PTHrP(112-139); overexpressing the
CC compound in a vascular smooth muscle cell decreases the level of
CC phosphorylated immunoreactive retinoblastoma polypeptide compared to the
CC level of phosphorylated immunoreactive retinoblastoma polypeptide
CC observed in the absence of the compound; and overexpressing the compound
CC in a vascular smooth muscle cell increases the level of immunoreactive
CC p27kip1 polypeptide compared to the level of immunoreactive p27kip1
CC polypeptide observed in the absence of the compound. (I) is useful for
CC treating or preventing a smooth muscle cell proliferation-associated
CC disorder, particularly in humans, such as uterine fibroid tumours,
CC prostatic hypertrophy, bronchial asthma, portal hypertension in
CC cirrhosis, pulmonary arterial hypertension, systemic arterial
CC hypertension, atherosclerosis, bladder disease, and vascular restenosis
CC after angioplasty. (I) is also useful in the manufacture of a medicament

CC for treating smooth muscle cell proliferation-associated disorders. This
CC is the amino acid sequence of a human parathyroid hormone related protein
CC (PTHrP) peptide comprising substitutions that can be introduced to the
CC PTHrP mutant of the invention.

XX SQ Sequence 33 AA;

Query Match 100.0%; Score 50; DB 8; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.088;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | |
Db 5 WLDGVTGS 13

RESULT 10
ADK98658
ID ADK98658 standard; protein; 33 AA.

XX AC ADK98658;

XX DT 20-MAY-2004 (first entry)

XX DE Human parathyroid hormone related protein (PTHrP) C-terminus.

XX KW cytotstatic; antiasthmatic; hypotensive; hepatotropic;
XX KW antiarteriosclerotic; uropathic; vasotropic;
XX KW parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
XX KW retinoblastoma; p27kip1;
XX KW smooth muscle cell proliferation-associated disorder;
XX KW uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
XX KW portal hypertension; cirrhosis; pulmonary arterial hypertension;
XX KW systemic arterial hypertension; atherosclerosis; bladder disease;
XX KW vascular restenosis; angioplasty.

XX OS Homo sapiens.

XX PN WO2004016151-A2.

XX PD 26-FEB-2004.

XX PF 13-AUG-2003; 2003WO-US025473.

XX PR 15-AUG-2002; 2002US-0403805P.

XX PA (OSTE-) OSTEOTROPHIN LLC.

XX PI Stewart AF, Fiaschi-Taesch N;

XX DR WPI; 2004-192051/18.

XX PT New compound comprising a parathyroid hormone-related protein (PTHrP)
XX mutant polypeptide, useful for treating or preventing smooth muscle cell
XX proliferation-associated disorders, such as atherosclerosis or bronchial
XX asthma.

XX PS Disclosure; SEQ ID NO 4; 100pp; English.

XX CC The invention describes a compound comprising a parathyroid hormone-
XX related protein (PTHrP) mutant polypeptide (I). (I) has the following
XX characteristics: the compound lacks a functional nuclear localisation
XX signal, or has a functional nuclear localisation signal and one or more
XX modified amino acids in the region of PTHrP(112-139); overexpressing the
XX compound in a vascular smooth muscle cell decreases the level of
XX phosphorylated immunoreactive retinoblastoma polypeptide compared to the
XX level of phosphorylated immunoreactive retinoblastoma polypeptide
XX observed in the absence of the compound; and overexpressing the compound
XX in a vascular smooth muscle cell increases the level of immunoreactive
XX p27kip1 polypeptide compared to the level of immunoreactive
XX p27kip1 polypeptide observed in the absence of the compound. (I) is useful for
XX treating or preventing a smooth muscle cell proliferation-associated
XX disorder, particularly in humans, such as uterine fibroid tumours,

CC prostatic hypertrophy, bronchial asthma, portal hypertension in
CC cirrhosis, pulmonary arterial hypertension, systemic arterial
CC hypertension, atherosclerosis, bladder disease, and vascular restenosis
CC after angioplasty. (I) is also useful in the manufacture of a medicament
CC for treating smooth muscle cell proliferation-associated disorders. This
CC is the amino acid sequence of a human parathyroid hormone related protein
CC (PTHrP) C-terminus.

XX SQ Sequence 33 AA;

Query Match 100.0%; Score 50; DB 8; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.088;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | |
Db 5 WLDGVTGS 13

RESULT 11

ADK98656

ID ADK98656 standard; peptide; 33 AA.

XX AC ADK98656;

XX DT 20-MAY-2004 (first entry)

XX DE Parathyroid hormone related protein (PTHrP) related peptide seqid 12.

XX KW cytotstatic; antiasthmatic; hypotensive; hepatotropic;
XX KW antiarteriosclerotic; uropathic; vasotropic;
XX KW parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
XX KW retinoblastoma; p27kip1;
XX KW smooth muscle cell proliferation-associated disorder;
XX KW uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
XX KW portal hypertension; cirrhosis; pulmonary arterial hypertension;
XX KW systemic arterial hypertension; atherosclerosis; bladder disease;
XX KW vascular restenosis; angioplasty.

XX OS Homo sapiens.

XX PN WO2004016151-A2.

XX PD 26-FEB-2004.

XX PF 13-AUG-2003; 2003WO-US025473.

XX PR 15-AUG-2002; 2002US-0403805P.

XX PA (OSTE-) OSTEOTROPHIN LLC.

XX PI Stewart AF, Fiaschi-Taesch N;

XX DR WPI; 2004-192051/18.

XX PT New compound comprising a parathyroid hormone-related protein (PTHrP)
XX mutant polypeptide, useful for treating or preventing smooth muscle cell
XX proliferation-associated disorders, such as atherosclerosis or bronchial
XX asthma.

XX PS Claim 46; SEQ ID NO 12; 100pp; English.

XX CC The invention describes a compound comprising a parathyroid hormone-
XX related protein (PTHrP) mutant polypeptide (I). (I) has the following
XX characteristics: the compound lacks a functional nuclear localisation
XX signal, or has a functional nuclear localisation signal and one or more
XX modified amino acids in the region of PTHrP(112-139); overexpressing the
XX compound in a vascular smooth muscle cell decreases the level of
XX phosphorylated immunoreactive retinoblastoma polypeptide compared to the
XX level of phosphorylated immunoreactive retinoblastoma polypeptide
XX observed in the absence of the compound; and overexpressing the compound
XX in a vascular smooth muscle cell increases the level of immunoreactive
XX p27kip1 polypeptide compared to the level of immunoreactive p27kip1

CC polypeptide observed in the absence of the compound. (I) is useful for
CC treating or preventing a smooth muscle cell proliferation-associated
CC disorder, particularly in humans, such as uterine fibroid tumours,
CC prostatic hypertrophy, bronchial asthma, portal hypertension in
CC cirrhosis, pulmonary arterial hypertension, systemic arterial
CC hypertension, atherosclerosis, bladder disease, and vascular restenosis
CC after angioplasty. (II) is also useful in the manufacture of a medicament
CC for treating smooth muscle cell proliferation-associated disorders. This
CC is the amino acid sequence of a human parathyroid hormone related protein
CC (PTHrP) peptide comprising substitutions that can be introduced to the
CC PTHrP mutant of the invention.

XX SQ Sequence 33 AA;

Query Match 100.0%; Score 50; DB 8; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.088;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 WLDGVTGS 9

DB 5 WLDGVTGS 13

RESULT 12

AAAR26411
ID AAR26411 standard; peptide; 34 AA.

AC AAR26411;

XX 10-MAR-2003 (revised)

DT 03-MAR-1993 (first entry)

XX C-terminal PTHrP peptide fragment.

DE Parathyroid hormone related protein; immunoassay; humoral;

XX hypercalcaemia; malignancy; HHM; diagnosis.

OS Homo sapiens.

XX JP04244100-A.

FN 01-SEP-1992.

XX 30-JAN-1991; 91JP-00027740.

XX 30-JAN-1991; 91JP-00027740.

XX (DARA) DAIICHI RADIOISOTOPE KENKYUSHO.

XX WPI; 1992-337754/41.

XX Para:thyroid hormone related protein immunoassay - comprise reaction with
PT antibody recognising protein C terminal, and detecting antibody-antigen
PT reaction.

XX Disclosure; Page 2; 8pp; Japanese.

XX The peptide shows the C-terminal sequence of parathyroid hormone related
CC protein. An antibody raised against this peptide may be used in an
CC immunoassay to detect levels of PTHrP in a sample. The assay may be
CC performed on healthy people or on those suffering from humoral
CC hypercalcaemia of malignancy (HHM). Th assay value from HHM is higher,
CC thus providing a means of diagnosis of HHM. (Updated on 10-MAR-2003 to
CC add missing OS field.)

XX SQ Sequence 34 AA;

Query Match 100.0%; Score 50; DB 2; Length 34;
Best Local Similarity 100.0%; Pred. No. 0.091;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 WLDGVTGS 9

XXXXXXXXXXXX

Db 4 WLDGVTGS 12

RESULT 13

AAAR41539
ID AAR41539 standard; protein; 56 AA.

XX AAR41539;

DT 13-OCT-1993 (first entry)

XX Synthetic PTHLP gene amino acids 86-141.

XX Parathyroid hormone-like protein; PTH-like protein.

OS Synthetic.

XX US5217896-A.

XX 08-JUN-1993.

XX 30-DEC-1988; 88US-00292263.

XX 30-DEC-1988; 88US-00292263.

XX (ONCO-) ONCOGENE SCI INC.

XX Kramer SP, Valenzuela DM, Reynolds FH, Sorvillo JM;

XX WPI; 1993-196249/24.

XX N-PSDB; AAQ43596.

XX Monoclonal antibody produced by hybridomas 212-10.7, 199-999 or 199-278 -
PT binds to parathyroid hormone-like protein, for detecting PTHLP and
PT diagnosing and treating humoral hypercalcaemia of malignancy.

XX Example; Fig 1C; 20pp; English.

XX The sequence is that of parathyroid hormone-like protein (PTHLP) amino
CC acids 86-141 which are encoded by a 183 bp PTHLP BamHI-SalI fragment,
CC segment "c", which was used in the construction of a synthetic PTHLP gene

XX SQ Sequence 56 AA;

Query Match 100.0%; Score 50; DB 2; Length 56;
Best Local Similarity 100.0%; Pred. No. 0.16;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 WLDGVTGS 9

DB 26 WLDGVTGS 34

RESULT 14

AAAR06980
ID AAR06980 standard; protein; 79 AA.

AC AAR06980;

DT 15-JAN-1991 (first entry)

XX PTHrP(B) polypeptide which inhibits parathyroid hormone related peptide
DE (PTHrP) activity.

XX Hypercalcaemia; osteoporosis; calcium metabolism.

XX Homo sapiens.

XX JP02207099-A.

XX 16-AUG-1990.

XX 07-FEB-1989; 89JP-00028023.

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XX 07-FEB-1989; 89JP-00028023.
XX (TOFU) TONEN CORP.
XX WPI; 1990-294318/39.
XX N-PSDB; AAO05346.
XX
XX Prepn. of pthrp related peptide for e.g. osteoporosis treatment - by
XX transforming and cultivating E.coli with required vector.
XX
XX Disclosure; Fig 3; l1pp; Japanese.
XX
XX Product is from a portion of the pThrp gene, carried on plasmid
XX pUCpThrp(B) used to transform an E.coli expression system. The product
XX may be used for treatment of hypercalcemia, osteoporosis and other
XX abnormalities of the calcium metabolism
XX
XX Sequence 79 AA;
SQ
    Query Match      100.0%; Score 50; DB 2; Length 79;
    Best Local Similarity 100.0%; Pred. No. 0.23;
    Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDSGVTGS 9
Db      49 WLDSGVTGS 57
      |||||
      |||||

RESULT 15
AAE23744
ID AAE23744 standard; protein; 133 AA.
XX
XX AAE23744;
XX
XX 10-SEP-2002 (first entry)
XX
XX Human parathyroid related peptide, PTHrP (7-139).
XX
XX Human parathyroid hormone; hPTH; PTH-related peptide; PTHrP; eczema;
XX hyperproliferative skin disorder; psoriasis; ichthyosis; skin cancer;
XX acne; actinic keratosis; alopecia; gene therapy.
XX
XX Homo sapiens.
XX
XX WO200228420-A2.
XX
XX 11-APR-2002.
XX
XX 05-OCT-2001; 2001WO-US031082.
XX
XX 06-OCT-2000; 2000US-0238134P.
XX
XX (HOLI/) HOLICK M F.
XX
XX Holick MF;
XX
XX WPI; 2002-454495/48.
XX
XX N-PSDB; AAD37997.
XX
XX Regulating mammalian skin or hair cell proliferation and differentiation
XX by administering nucleic acids encoding peptides derived from N-terminal
XX region of human parathyroid hormone (hPTH) or hPTH-related protein.
XX
XX Claim 35; Fig 44; 56pp; English.
XX
XX The invention relates to a method for regulating proliferation or
XX enhancing differentiation of mammalian skin or hair cell. The method
XX involves administering nucleic acids encoding peptides derived from N-
XX terminal region of human parathyroid hormone (hPTH) or hPTH-related
XX peptide (PTHrP). The method is used for inhibiting hyperproliferative
XX skin disorders such as psoriasis, ichthyosis, eczema, acne, actinic
XX keratosis, skin cancer, for inhibiting hair growth or preventing hair

```

```

CC regrowth. It is useful for stimulating cell growth, rejuvenating aged
CC skin, preventing skin wrinkles, treating skin wrinkles, enhancing wound
CC healing, stimulating hair growth, maintaining hair growth, treating or
CC preventing female or male pattern baldness, for treating chemotherapy
CC induced alopecia and also for stimulating epidermal cell growth or hair
CC follicle cell growth. The method is also used in gene therapy. The
CC present sequence is hPTHrP peptide
XX
XX SQ Sequence 133 AA;

```

```

    Query Match      100.0%; Score 50; DB 5; Length 133;
    Best Local Similarity 100.0%; Pred. No. 0.39;
    Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 WLDSGVTGS 9
Db      105 WLDSGVTGS 113
      |||||
      |||||

```

```

Search completed: December 2, 2005, 23:27:51
Job time : 25.8764 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:04:13 ; Search time 3.94382 Seconds
(without alignments)
219.572 Million cell updates/sec

Title: US-10-691-125-4

Perfect score: 50

Sequence: 1 WLDGSGVTGS 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR_80:*

1: piri:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	50	100.0	177	1 PTHU2L	parathyroid hormon
2	50	100.0	209	1 PTHU3L	parathyroid hormon
3	39	78.0	1044	2 H69049	isoleucine-tRNA li
4	39	78.0	1045	1 SYEXI	isoleucine-tRNA li
5	38	76.0	282	2 T13218	hypothetical prote
6	38	76.0	524	2 G86834	alpha-amylase (EC
7	38	76.0	949	2 D82293	isoleucyl-tRNA syn
8	37	74.0	579	2 J70494	alpha-glucosidase
9	37	74.0	732	2 A09338	primosomal protein
10	37	74.0	732	2 F91236	primosomal protein
11	37	74.0	732	2 AD0014	primosomal protein
12	37	74.0	732	2 F86083	primosomal protein
13	37	74.0	732	2 A35505	primosomal replica
14	37	74.0	1218	2 S38182	probable transport
15	36	72.0	285	2 A71553	hypothetical prote
16	36	72.0	287	2 F81705	conserved hypothet
17	36	72.0	314	2 F70505	probable trna delt
18	36	72.0	413	2 A86814	phosphoribosylamin
19	36	72.0	423	2 J77722	cellulase (EC 3.2
20	36	72.0	490	2 T46182	glucosyltransferas
21	36	72.0	516	2 G70149	hypothetical prote
22	36	72.0	544	2 G90524	hypothetical prote
23	36	72.0	561	2 H69755	oligo-1,6-glucosid
24	36	72.0	562	2 A41707	oligo-1,6-glucosid
25	36	72.0	570	2 A45249	alpha-glucosidase
26	36	72.0	599	2 S55363	maltase-like prote
27	36	72.0	730	2 G64062	primosomal replica
28	35	70.0	176	1 S10202	parathyroid hormon
29	35	70.0	315	2 A36944	outer membrane pro

RESULT 1

PTHU2L

Parathyroid hormone-related protein precursor, splice form 2 - human

N;Alternate names: parathyroid hormone-like protein

N;Contains: parathyroid hormone-related protein, splice form 1; parathyroid hormone-rela-

C;Species: Homo sapiens (man)

C;Date: 31-Mar-1993 #sequence revision 31-Mar-1993 #text change 09-Jul-2004

C;Accession: A33360; B33360; A28120; A94295; B94295; A36166; A91606; A28034; A36512; J50

R;Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.

J. Biol. Chem. 264, 7720-7725, 1989

A;Title: Characterization of the human parathyroid hormone-like peptide gene. Functional

A;Reference number: A33360; MUID:89214227; PMID:2708388

A;Accession: A33360

A;Molecule type: DNA

A;Residues: 1-175 <VAS>

A;Cross-references: UNIPARC:UPI000002B1CC; UNIPARC:UPI000002B1CC; GB:M24349; GB:J04710; NID:G191

A;Accession: B33360

A;Molecule type: DNA

A;Residues: 176-177 <VAS2>

A;Cross-references: UNIPARC:UPI00001734EA; GB:J04710

R;Mangin, M.; Webb, A.C.; Dreyer, B.E.; Posillico, J.T.; Ikeda, K.; Weir, E.C.; Stewart,

Proc. Natl. Acad. Sci. U.S.A. 85, 597-601, 1988

A;Title: Identification of a cDNA encoding a parathyroid hormone-like peptide from a hum

A;Reference number: A28120; MUID:88124888; PMID:2829195

A;Accession: A28120

A;Molecule type: mRNA

A;Residues: 1-177 <MAN>

A;Cross-references: UNIPARC:UPI0000047E25; EMBL:J03580

R;Suva, L.J.; Winslow, G.A.; Wettenhall, R.E.H.; Hammonds, R.G.; Moseley, J.M.; Diefenba-

Science 237, 893-896, 1987

A;Title: A parathyroid hormone-related protein implicated in malignant hypercalcemia; cl.

A;Reference number: A94295; MUID:87292119; PMID:3616618

A;Accession: A94295

A;Molecule type: mRNA

A;Residues: 1-177 <SVU1>

A;Cross-references: UNIPARC:UPI0000047E25; GB:M17183; NID:G190725; PIDN:AAA60221.1; PID:.

A;Accession: B94295

A;Molecule type: protein

A;Residues: 37-70, 'X', 72-84, 'X', 86, 103-115 <SUW2>

A;Cross-references: UNIPARC:UPI00001734EB; UNIPARC:UPI00001734EC

R;Thiede, M.A.; Strewler, G.J.; Nissensohn, R.A.; Rosenblatt, M.; Rodan, G.A.

Proc. Natl. Acad. Sci. U.S.A. 85, 4605-4609, 1988

A;Title: Human renal carcinoma expresses two messages encoding a parathyroid hormone-like

A;Reference number: A36166; MUID:88262996; PMID:3230897

A;Accession: A36166

A;Molecule type: mRNA

A;Residues: 1-175 <THI>

A;Cross-references: UNIPARC:UPI000002B1CC; GB:J03802; NID:G190717; PIDN:AAA60218.1; PID:

R;Suva, L.J.; Mather, K.A.; Gillespie, M.T.; Webb, G.C.; Ng, K.W.; Winslow, G.A.; Wood,

Gene 77, 95-105, 1989

A;Title: Structure of the 5' flanking region of the gene encoding human parathyroid-horm

A;Reference number: A91606; MUID:89306685; PMID:2744490

hypothetical protein R282 - Lactobacillus phage phi-gle
 C:Species: Lactobacillus phage phi-gle
 C:Date: 13-Aug-1999 #sequence_revision 13-Aug-1999 #text_change 21-Jul-2000
 C:Accession: T13218
 R:Kodaira, K.I.; Oki, M.; Kakikawa, M.; Watanabe, N.; Hirakawa, M.; Yamada, K.; Taketo, Gene 187, 45-53, 1997
 A:Title: Genome structure of the Lactobacillus temperate phage phi gle: the whole genome
 A:Reference number: 217631; MUID:97225795; PMID:9073065
 A:Accession: T13218
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-282 <KOD>
 A:Cross-references: UNIPARC:UPI000009B55F; EMBL:X98106; NID:gl926320; PIDN:CAA6747.1; F
 C:Genetics:
 A:Note: Rorf282

Query Match 76.0%; Score 38; DB 2; Length 282;
 Best Local Similarity 77.8%; Pred. No. 12;
 Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
 ||||| ||
 Db 122 WLDGVTGS 130

RESULT 6
 G86834
 alpha-amylase (EC 3.2.1.1) [imported] - Lactococcus lactis subsp. lactis (strain IL1403)
 C:Species: Lactococcus lactis subsp. lactis
 C:Date: 23-Mar-2001 #sequence_revision 23-Mar-2001 #text_change 09-Jul-2004
 C:Accession: G86834
 R:Boletini, A.; Wincker, P.; Mauger, S.; Jaillon, O.; Malarme, K.; Weissenbach, J.; Ehrlich Genome Res. 11, 731-753, 2001
 A:Title: The complete genome sequence of the lactic acid bacterium Lactococcus lactis s
 A:Reference number: A86625; MUID:21235186; PMID:11337471
 A:Accession: G86834
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-524 <STO>
 A:Cross-references: UNIPROT:Q9CF02; UNIPARC:UPI00000C6AC6; GB:AE005176; PID:gl2724693; F
 C:Experimental source: strain IL1403
 C:Genetics:
 A:Gene: amyV
 C:Superfamily: alpha-glucosidase
 C:Keywords: glycosidase; hydrolase

Query Match 76.0%; Score 38; DB 2; Length 524;
 Best Local Similarity 75.0%; Pred. No. 25;
 Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WLDGVTG 8
 ||||| ||
 Db 217 WLDKGVSG 224

RESULT 7
 D82293
 isoleucyl-tRNA synthetase VC0682 [imported] - Vibrio cholerae (strain N16961 serogroup C
 C:Species: Vibrio cholerae
 C:Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
 C:Accession: D82293
 R:Heidelberger, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R.J.; Chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers, F. 1, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M. Nature 406, 477-483, 2000
 A:Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.
 A:Reference number: A82035; MUID:20406833; PMID:10952301
 A:Accession: D82293
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-949 <HEI>
 A:Cross-references: UNIPROT:Q9KU47; UNIPARC:UPI00000C2D74; GB:AE004154; GB:AE003852; NID
 A:Experimental source: serogroup O1, strain N16961; biotype El Tor

C:Genetics:
 A:Gene: VC0682
 A:Map position: 1
 C:Superfamily: isoleucine-tRNA ligase

Query Match 76.0%; Score 38; DB 2; Length 949;
 Best Local Similarity 77.8%; Pred. No. 48;
 Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
 ||||| ||
 Db 540 WFDGVTGS 548

RESULT 8
 JT0494
 alpha-glucosidase homolog precursor - yellow fever mosquito
 N:Alternate names: maltase homolog
 C:Species: Aedes aegypti (yellow fever mosquito)
 C:Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 09-Jul-2004
 C:Accession: JT0494
 R:James, A.A.; Blackmer, K.; Racioppi, J.V. Gene 75, 73-83, 1989
 A:Title: A salivary gland-specific, maltase-like gene of the vector mosquito, Aedes aegy
 A:Reference number: JT0494; MUID:89252923; PMID:2470653
 A:Accession: JT0494
 A:Molecule type: mRNA
 A:Residues: 1-579 <JAM>
 A:Cross-references: UNIPROT:P13080; UNIPARC:UPI000012B65; GB:M30442; GB:M22322; GB:M223
 A:Note: the authors translated the codon CAA for residue 569 as Lys
 C:Genetics:
 A:Gene: Mali
 C:Superfamily: alpha-glucosidase; alpha-amylase core homology
 C:Keywords: glycoprotein
 F:1-18/Domain: signal sequence #status predicted <SIG>
 F:19-579/Product: alpha-glucosidase homolog #status predicted <MAT>
 F:187-359/Domain: alpha-amylase core homology <AMY>
 F:118,151,282,304,325,401/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 74.0%; Score 37; DB 2; Length 579;
 Best Local Similarity 75.0%; Pred. No. 43;
 Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WLDGVTG 8
 ||||| ||
 Db 208 WLDKGVSG 215

RESULT 9
 AF0938
 Primosomal protein replication factor [imported] - Salmonella enterica subsp. enterica s
 C:Species: Salmonella enterica subsp. enterica serovar Typhi
 A:Note: this species has also been called Salmonella typhi
 C:Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 18-Nov-2002
 C:Accession: AF0938
 R:Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher, th, T.; Conerton, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar, S.; Moule, S.; O'Gaora, P. Nature 413, 848-852, 2001
 A:Title: Complete genome sequence of a multiple drug resistant Salmonella enterica serov
 A:Reference number: AB0502; MUID:21534947; PMID:11677608
 A:Accession: AF0938
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-732 <PAR>
 A:Cross-references: UNIPARC:UPI000005A607; GB:AL513382; PIDN:CAD09528.1; PID:gl6504644;
 C:Genetics:
 A:Gene: STY3775

Query Match 74.0%; Score 37; DB 2; Length 732;
 Best Local Similarity 77.8%; Pred. No. 56;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

```
QY      1 WLDGSGVTGS 9
      || :|||||
Db      220 WLLAGVTGS 228

RESULT 10
F91236
Primosomal protein N' [imported] - Escherichia coli (strain O157:H7, substrain RIMD 0509
C;Species: Escherichia coli
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
C;Accession: F91236
R;Hayashi, T.; Makino, K.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G.
gasawara, N.; Vasanaga, S.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001
A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and gene
A;Reference number: A99629; MUID:21156231; PMID:11258796
A;Accession: F91236
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-732 <HAY>
A;Cross-references: UNIPROT:Q8X779; UNIPARC:UPI000000D0AAA; GB:BA000007; PIDN:BA038285.1;
A;Experimental source: strain O157:H7, substrain RIMD 050952
C;Genetics:
A;Gene: ECs4862

Query Match      74.0%; Score 37; DB 2; Length 732;
Best Local Similarity 77.8%; Pred. No. 56;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      1 WLDGSGVTGS 9
      || :|||||
Db      220 WLLAGVTGS 228

RESULT 11
AD0014
Primosomal protein N' [imported] - Yersinia pestis (strain CO92)
C;Species: Yersinia pestis
C;Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Jul-2004
C;Accession: AD0014
R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Hoiden, M.T.G.; Prentice, M.B.
deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.;
il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrall,
Nature 413, 523-527, 2001
A;Title: Genome sequence of Yersinia pestis, the causative agent of plague.
A;Reference number: AB0001; MUID:21470413; PMID:11586360
A;Accession: AD0014
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-732 <KUR>
A;Cross-references: UNIPROT:Q8ZJ1; UNIPARC:UPI000000DC7B9; GB:AL590842; PIDN:CAC88974.1;
C;Genetics:
A;Gene: priA

Query Match      74.0%; Score 37; DB 2; Length 732;
Best Local Similarity 77.8%; Pred. No. 56;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      1 WLDGSGVTGS 9
      || :|||||
Db      220 WLLAGVTGS 228

RESULT 12
F86083
Primosomal protein N' [imported] - Escherichia coli (strain O157:H7, substrain EDL933)
C;Species: Escherichia coli
C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C;Accession: F86083
R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew
iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimailanta, E.; Potamousis, K.; Apodaca,
Nature 409, 529-533, 2001
A;Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A;Reference number: A85480; MUID:21074935; PMID:11206551
A;Accession: F86083
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-732 <STO>
A;Cross-references: UNIPROT:Q8X779; UNIPARC:UPI000000D0AAA; GB:AE005174; NID:gl2518841; P
A;Experimental source: strain O157:H7, substrain EDL933
C;Genetics:
A;Gene: priA

Query Match      74.0%; Score 37; DB 2; Length 732;
Best Local Similarity 77.8%; Pred. No. 56;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      1 WLDGSGVTGS 9
      || :|||||
Db      220 WLLAGVTGS 228

RESULT 13
A35505
Primosomal replication factor Y - Escherichia coli (strain K-12)
N;Alternate names: protein n'
C;Species: Escherichia coli
C;Date: 09-Nov-1990 #sequence_revision 19-May-1995 #text_change 09-Jul-2004
C;Accession: S40878; A35505; A35506; B65200
R;Plunkett III, G.; Burland, V.; Daniels, D.L.; Blattner, F.R.
Nucleic Acids Res. 21, 3391-3398, 1993
A;Title: Analysis of the Escherichia coli genome. III. DNA sequence of the region from 8'
A;Reference number: S40802; MUID:93347969; PMID:8346018
A;Accession: S40878
A;Molecule type: DNA
A;Residues: 1-732 <PLU>
A;Cross-references: UNIPROT:PI7888; UNIPARC:UPI0000169206; EMBL:L19201; NID:G304961; PIDN
R;Nurse, P.; DiGate, R.J.; Zavitz, K.H.; Mariani, K.J.
Proc. Natl. Acad. Sci. U.S.A. 87, 4615-4619, 1990
A;Title: Molecular cloning and DNA sequence analysis of Escherichia coli priA, the gene
A;Reference number: A35505; MUID:90280426; PMID:2162049
A;Accession: A35505
A;Molecule type: DNA
A;Residues: 1-648, 'V', 650-732 <NUR>
A;Cross-references: UNIPARC:UPI000016F40D; GB:D00616; GB:M33881; NID:g216619; PIDN:BAA000
R;Lee, E.H.; Masai, H.; Allen Jr., G.C.; Kornberg, A.
Proc. Natl. Acad. Sci. U.S.A. 87, 4620-4624, 1990
A;Title: The priA gene encoding the primosomal replicative n' protein of Escherichia coli
A;Reference number: A35506; MUID:90280427; PMID:2162050
A;Accession: A35506
A;Molecule type: DNA
A;Residues: 1-155, 'R', 157-620, 'R', 622-732 <LEE>
A;Cross-references: UNIPARC:UPI000013218A; GB:M33293; NID:gl47344; PIDN:AAA24416.1; PIDN
R;Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.; Col
.A.; Rose, D.J.; Mau, B.; Shao, Y.
Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia coli K-12.
A;Reference number: A64720; MUID:97426617; PMID:9278503
A;Accession: B65200
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-732 <BLAT>
A;Cross-references: UNIPARC:UPI0000168206; GB:AE000467; GB:U00096; NID:gl790356; PIDN:AA
A;Experimental source: strain K-12, substrain MG1655
C;Genetics:
A;Gene: priA
A;Map position: 88.5 min
A;Keywords: ATP; DNA binding; nucleotide binding; P-loop
F;224-231/Region: nucleotide-binding motif A (P-loop)
F;316-321/Region: nucleotide-binding motif B
F;320-323/Region: DEXH motif

Query Match      74.0%; Score 37; DB 2; Length 732;
Best Local Similarity 77.8%; Pred. No. 56;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
```

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Qy      1 WLDGVTGS 9
      || :|||||
Db      220 WLLAGVTGS 228

RESULT 14
S38182
probable transport protein YKR103w - yeast (Saccharomyces cerevisiae)
N;Alternate names: multidrug resistance protein homolog YKR103w
C;Species: Saccharomyces cerevisiae
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 05-Oct-2004
C;Accession: S38182
R;Gailion, L.; Dujon, B.
submitted to the Protein Sequence Database, March 1994
A;Reference number: S38175
A;Accession: S38182
A;Molecule type: DNA
A;Residues: 1-1218 <GAI>
A;Cross-references: UNIPARC:UPI000016038C; EMBL:Z28328; NID:5486610; PIDN:CAAB2183.1; PI
A;Experimental source: strain S288C
C;Genetics:
A;Cross-references: SGD:S0001811
A;Map position: 11R
C;Keywords: ATP; nucleotide binding; P-loop; transmembrane protein
F;669-868/Domain: ATP-binding cassette homology <ABC>
F;686-693/Region: nucleotide-binding motif A (P-loop)
F;692/Binding site: ATP (Lys) #status predicted

Query Match      74.0%; Score 37; DB 2; Length 1218;
Best Local Similarity 66.7%; Pred. No. 97;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy      1 WLDGVTGS 9
      |||:|:|
Db      985 WLDGTGSGS 993

RESULT 15
A71553
hypothetical protein CT144 - Chlamydia trachomatis (serotype D, strain UW3/Cx)
C;Species: Chlamydia trachomatis
C;Date: 13-Sep-1998 #sequence_revision 13-Sep-1998 #text_change 09-Jul-2004
C;Accession: A71553
R;Stephens, R.S.; Kalman, S.; Lammel, C.J.; Fan, J.; Marathe, R.; Aravind, L.; Mitchell,
Science 282, 754-759, 1998
A;Title: Genome sequence of an obligate intracellular pathogen of humans: Chlamydia tra
A;Reference number: A71570; MUID:99000809; PMID:9784136
A;Accession: A71553
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-285 <ARN>
A;Cross-references: UNIPROT:O84146; UNIPARC:UPI00000C0AF4; GB:AE001287; GB:AE001273; NID
A;Experimental source: serotype D, strain UW-3/Cx
C;Genetics:
A;Gene: CT144

Query Match      72.0%; Score 36; DB 2; Length 285;
Best Local Similarity 75.0%; Pred. No. 31;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy      1 WLDGVTG 8
      |||:|
Db      202 WLDNGVGG 209

Search completed: December 2, 2005, 23:29:21
Job time : 6.94382 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:38:37 ; Search time 25.0281 Seconds
(without alignments)
253.705 Million cell updates/sec

Title: US-10-691-125-4
Perfect score: 50
Sequence: 1 WLDGSGVTGS 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	50	100.0	175	2	Q53XY9 HUMAN
2	50	100.0	177	1	P12272 homo sapien
3	50	100.0	177	2	Q6FH74 HUMAN
4	50	100.0	202	2	Q9BD23_BACIT
5	42	84.0	553	2	Q4MN53_BACCE
6	42	84.0	553	2	Q81H24_BACCR
7	42	84.0	553	2	Q73DL2_BACCI
8	42	84.0	553	2	Q81V68_BACAN
9	42	84.0	553	2	Q6HN11_BACHK
10	42	84.0	553	2	Q83G13_BACCC
11	41	82.0	272	2	Q7UQJ1_RHOBA
12	41	82.0	954	2	Q4P7P7_USTMA
13	40	80.0	177	2	Q659U2_PHOVI
14	40	80.0	177	2	Q659U3_HALGR
15	40	80.0	188	2	Q5C704_SCHJA
16	40	80.0	216	2	Q8XWJ9_RALSO
17	40	80.0	273	2	Q4SPD5_TETNG
18	40	80.0	281	2	Q4JSD8_CORJK
19	40	80.0	402	2	Q7NEY8_GLOVI
20	40	80.0	419	2	Q93R71_STRSU
21	40	80.0	419	2	Q8DNJ7_STRMU
22	40	80.0	678	2	Q8GQZ0_9GAMM
23	40	80.0	1675	2	Q98SW4_BRARE
24	39	78.0	103	2	Q5F161_LACAC
25	39	78.0	166	2	Q63L79_BURPS
26	39	78.0	230	2	Q6R3H4_9RHIZ
27	39	78.0	293	2	Q5WAX1_BACSK
28	39	78.0	388	2	Q9CNY3_PASMU
29	39	78.0	1043	1	SVI_METH
30	39	78.0	1044	1	SVI_METTM
31	38	76.0	155	2	Q6ZSE9_HUMAN

32 38 76.0 204 2 Q6BA75_9PROT Q6BA75 uncultured
33 38 76.0 278 1 PHAZ_PSEFL Q51718 pseudomonas
34 38 76.0 278 2 Q84C08_PSEAC Q84C08 pseudomonas
35 38 76.0 282 2 O03939_9CAUD O03939 bacterioph
36 38 76.0 283 2 Q4KT50_9NUCL Q4KT50 chrysoideixi
37 38 76.0 459 2 Q88TK3_LACPL Q88TK3 lactobacill
38 38 76.0 459 2 Q67TS2_ORYSA Q67TS2 oryza sativ
39 38 76.0 524 2 Q9CF02_LACLA Q9CF02 lactococcus
40 38 76.0 568 2 Q6UEB8_ASPPA Q6UEB8 aspergillus
41 38 76.0 598 2 Q8KR84_9ENTR Q8KR84 klebsiella
42 38 76.0 598 2 Q6XNK6_PANTOA Q6XNK6 pantoea dis
43 38 76.0 598 2 Q4L2Q1_KLEBIE Q4L2Q1 klebsiella
44 38 76.0 600 2 Q9A164_9ENTR Q9A164 erwiniia rha
45 38 76.0 600 2 Q4J3V8_AZOVI Q4J3V8 azotobacter

ALIGNMENTS

RESULT 1

ID Q53XY9 HUMAN PRELIMINARY; PRT; 175 AA.
AC Q53XY9;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone-like hormone.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kainine N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA Koundinya M., Raphael J., Moreira D., Kelley T., LaBaer J., Lin Y.,
RA Phelan M., Farmer A.;
RT "Cloning of human full-length cDNAs in BD Creator(TM) System Donor
vector."
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; BT007178; AAP35842.1; -; mRNA
SQ SEQUENCE 175 AA; 19900 MW; 4FE954C51DB3E7D CRC64;

Query Match 100.0%; Score 50; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.31;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGSGVTGS 9
| | | | | | | | | |
Db 147 WLDGSGVTGS 155

RESULT 2

ID PTHR_HUMAN STANDARD; PRT; 177 AA.
AC P12272; Q15251;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-OCT-1989 (Rel. 12, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp)
[Contains: PTHrP[1-36]; PTHrP[38-94]; Osteostatin (PTHrP[107-139])].
GN Name=PTHrP; Synonyms=PTHRP;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE AND PARTIAL PROTEIN SEQUENCE.
RX MEDLINE=87292119; PubMed=3616618;
RA Suva L.J., Winslow G.A., Wettenhall R.E.H., Hammonds R.G.,
RA Moseley J.M., Diefenbach-Jagger H., Rodda C.P., Kemp B.B.,
RA Rodriguez H., Chen E.Y., Hudson P.J., Martin T.J., Wood W.I.;

RT "A parathyroid hormone-related protein implicated in malignant
RT hypercalcemia: cloning and expression.";
RL Science 237:893-896(1987).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=88124888; PubMed=2829195;
RA Mangin M., Webb A.C., Dreyer B.E., Posillico J.T., Ikeda K.,
RA Weir E.C., Stewart A.F., Bander N.H., Milstone L., Barton D.E.,
RA Francke U., Broadus A.E.;
RT "Identification of a cDNA encoding a parathyroid hormone-like peptide
RT from a human tumor associated with humoral hypercalcemia of
RT malignancy.";
RL Proc. Natl. Acad. Sci. U.S.A. 85:597-601(1988).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=89214221; PubMed=2709388;
RA Yasuda T., Banville D., Hendy G.N., Goitzman D.;
RT "Characterization of the human parathyroid hormone-like peptide gene.
RT Functional and evolutionary aspects.";
RL J. Biol. Chem. 264:7720-7725(1989).
RN [4]
RP NUCLEOTIDE SEQUENCE (ISOFORM 2).
RX MEDLINE=88262996; PubMed=3290897;
RA Thiede M.A., Strewler G.J., Nissenson R.A., Rosenblatt M., Rodan G.A.;
RT "Human renal carcinoma expresses two messages encoding a parathyroid
RT hormone-like peptide: evidence for the alternative splicing of a
RT single-copy gene.";
RL Proc. Natl. Acad. Sci. U.S.A. 85:4605-4609(1988).
RN [5]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 2).
RT TISSUE=Brain;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Rana S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickinson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalls D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [6]
RP NUCLEOTIDE SEQUENCE OF 1-33.
RT TISSUE=Liver;
RX MEDLINE=89306688; PubMed=2744490; DOI=10.1016/0378-1119(89)90363-6;
RA Suva L.J., Mather K.A., Gillespie M.T., Webb G.C., Ng K.W.,
RA Winslow G.A., Wood W.I., Martin T.J., Hudson P.J.;
RT "Structure of the 5' flanking region of the gene encoding human
RT parathyroid-hormone-related protein (PTHrP).";
RL Gene 77:95-105(1989).
RN [7]
RP PROTEIN SEQUENCE OF 37-52.
RX MEDLINE=87260926; PubMed=2885845;
RA Moseley J.M., Kubota M., Diefenbach-Jagger H., Wattenhall R.E.H.,
RA Kemp B.E., Suva L.J., Rodda C.P., Ebeling P.R., Hudson P.J.,
RA Zajac J.D., Martin T.J.;
RT "Parathyroid hormone-related protein purified from a human lung cancer
RT cell line.";
RL Proc. Natl. Acad. Sci. U.S.A. 84:5048-5052(1987).
RN [8]
RP ALTERNATIVE SPLICING (ISOFORM 3).
RX MEDLINE=89184636; PubMed=2928340;
RA Mangin M., Ikeda K., Dreyer B.E., Broadus A.E.;
RT "Isolation and characterization of the human parathyroid hormone-like
RT peptide gene.";
RL Proc. Natl. Acad. Sci. U.S.A. 86:2408-2412(1989).
RN [9]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=92007462; PubMed=1915066;
RA Fenton A.J., Kemp B.E., Kent G.N., Moseley J.M., Zheng M.H.,
RA Rowe D.J., Britto J.M., Martin T.J., Nicholson G.C.;
RT "A carboxyl-terminal peptide from the parathyroid hormone-related
RT protein inhibits bone resorption by osteoclasts.";
RL Endocrinology 129:1762-1768(1991).
RN [10]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=92063907; PubMed=1954916;
RA Fenton A.J., Kemp B.E., Hammonds R.G., Mitchell K., Moseley J.M.,
RA Martin T.J., Nicholson G.C.;
RT "A potent inhibitor of osteoclastic bone resorption within a highly
RT conserved pentapeptide region of parathyroid hormone-related protein;
RT PTHrP107-111.";
RL Endocrinology 129:3424-3426(1991).
RN [11]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=97289439; PubMed=9144344;
RA Martinez M.E., Garcia-Ocana A., Sanchez M., Medina S., del Campo T.,
RA Valin A., Sanchez-Cabezudo M.J., Ebrill P.;
RT "C-terminal parathyroid hormone-related protein inhibits proliferation
RT and differentiation of human osteoblast-like cells.";
RL J. Bone Miner. Res. 12:778-785(1997).
RN [12]
RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
RX MEDLINE=97200810; PubMed=9048639; DOI=10.1210/en.138.3.1299;
RA Cornish J., Callon K.E., Nicholson G.C., Reid I.R.;
RT "Parathyroid hormone-related protein-(107-139) inhibits bone
RT resorption in vivo.";
RL Endocrinology 138:1299-1304(1997).
RN [13]
RP NUCLEOCYTOPLASMIC SHUTTLING.
RX MEDLINE=22736810; PubMed=12852260; DOI=10.1016/S0083-6729(03)01010-0;
RA Jans D.A., Thomas R.J., Gillespie M.T.;
RT "Parathyroid hormone-related protein (PTHrP): a nucleocytoplasmic
RT shuttling protein with distinct patacrine and intracrine roles.";
RL Vitam. Horm. 66:345-384(2003).
RN [14]
RP NUCLEAR LOCALIZATION SIGNAL.
RX MEDLINE=21294781; PubMed=11401507; DOI=10.1006/bbrc.2001.4607;
RA Lam M.H., Hu W., Xiao C.Y., Gillespie M.T., Jans D.A.;
RT "Molecular dissection of the importin beta1-recognized nuclear
RT targeting signal of parathyroid hormone-related protein.";
RL Biochem. Biophys. Res. Commun. 282:629-634(2001).
RN [15]
RP REVIEW.
RX MEDLINE=22425984; PubMed=12538599; DOI=10.1210/en.2002-220818;
RA Fiaschi-Taesch N.M., Stewart A.F.;
RT "Minireview: parathyroid hormone-related protein as an intracrine
RT factor -- trafficking mechanisms and functional consequences.";
RL Endocrinology 144:407-411(2003).
RN [16]
RP STRUCTURE BY NMR OF 37-70.
RX MEDLINE=99158054; PubMed=10050767; DOI=10.1016/S0014-5793(98)01658-5;
RA Weidner M., Marx U.C., Seidel G., Schafer W., Hoffmann E., Esswein A.,
RA Rosch P.;
RT "The structure of human parathyroid hormone-related protein(1-34) in
RT near-physiological solution.";
RL FEBS Lett. 444:239-244(1999).
RN [17]
RP X-RAY CRYSTALLOGRAPHY (2.9 ANGSTROMS) OF 103-130.
RX MEDLINE=22394015; PubMed=12504010; DOI=10.1016/S1097-2765(02)00727-X;
RA Cingolani G., Bedenro J., Gillespie M.T., Gerace L.;
RT "Molecular basis for the recognition of a nonclassical nuclear
RT localization signal by importin beta.";
RL Mol. Cell 10:1345-1353(2002).
CC -I- FUNCTION: Neuroendocrine peptide which is a critical regulator of

cellular and organ growth, development, migration, differentiation and survival and of epithelial calcium ion transport. Regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth.

-!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone resorption.

-!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted.

-!- ALTERNATIVE PRODUCTS:

Event=Alternative splicing; Named isoforms=3;
Comment=Additional isoforms seem to exist;
Name=1; IsoId=P12272-1; Sequence=Displayed;
Name=2; IsoId=P12272-2; Sequence=VSP_004534;
Name=3; IsoId=P12272-3; Sequence=VSP_004535;
-!- TISSUE SPECIFICITY: Ubiquitous. Also expressed in the mammary gland.

-!- PTM: There are 3 principal secretory forms, called PTHrP[1-36], PTHrP[38-94], and osteostatin (PTHrP[107-139]) arising from endoproteolytic cleavage of the initial translation product. Each of these secretory forms is believed to have one or more of its own receptors that mediates the normal paracrine, autocrine and endocrine actions.

-!- DISEASE: Produced by many tumors from patients with HHM (humoral hypercalcemia of malignancy).

-!- SIMILARITY: Belongs to the parathyroid hormone family.

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DR EMBL; M17183; AAA60221.1; -; Genomic_DNA.

Query Match 100.0%; Score 50; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.31;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | |
Db 147 WLDGVTGS 155

RESULT 3
Q6FH74 HUMAN
ID Q6FH74 HUMAN PRELIMINARY; PRT; 177 AA.
AC Q6FH74;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE PTHLH protein (Fragment).
GN Name=PTHLH;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Halleck A., Ebert L., Moundinya M., Schick M., Eisenstein S.,
RA Neubert P., Katrang K., Schatten R., Shen B., Henze S., Mar W.,
RA Korn B., Zuo D., Hu Y., Labaer J.,
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR541882; CAG4680.1; -; mRNA.
FT NON TER 177
SQ SEQUENCE 177 AA; 20194 MW; 449FDFEE954C51DB CRC64;

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.31;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | |
Db 147 WLDGVTGS 155

RESULT 4
Q9BDZ3 RABIT
ID Q9BDZ3 RABIT PRELIMINARY; PRT; 202 AA.
AC Q9BDZ3;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Parathyroid hormone-related protein.
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Perichondrial;
RA Goomer R., Terkeltaub R., Deftos L.J.;
RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF219973; AAK38175.1; -; mRNA.
DR HSP; P12272; IBZG.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003626; PTH_related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
SQ SEQUENCE 202 AA; 22924 MW; 03FBE00AEF3EA7D6 CRC64;

Query Match 100.0%; Score 50; DB 2; Length 202;
Best Local Similarity 100.0%; Pred. No. 0.36;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
| | | | |
Db 147 WLDGVTGS 155

RESULT 5
Q4MN53 BACCE
ID Q4MN53 BACCE PRELIMINARY; PRT; 553 AA.
AC Q4MN53;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Trehalose-6-phosphate hydrolase.
GN ORFNames=BCE_G9241_0609;
OS Bacillus cereus G9241.
OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus;
OC Bacillus cereus group.
OX NCBI_TaxID=269801;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=G9241;
RX PubMed=15155910; DOI=10.1073/pnas.0402414101;
RA Hofmaster A.R., Ravel J., Raeko D.A., Chapman G.D., Chute M.D.,
RA Marston C.K., De B.K., Sacchi C.T., Fitzgerald C., Mayer L.W.,
RA Maiden M.C.J., Priest F.G., Barker M., Jiang L., Cer R.Z.,
RA Rillstone J., Peterson S.N., Weyant R.S., Galloway D.R., Read T.D.,
RA Popovic T., Fraser C.M.;
RT "Identification of anthrax toxin genes in a Bacillus cereus associated with an illness resembling inhalation anthrax";
RL Proc. Natl. Acad. Sci. U.S.A. 101:8449-8454(2004).
CC -!- CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.

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DR EMBL; AAEK01000024; EAL13578.1; -; Genomic_DNA.
KW Hydrolyase.
SQ SEQUENCE 553 AA; 65622 MW; 6400A3847C7C7A7F CRC64;

Query Match 84.0%; Score 42; DB 2; Length 553;
Best Local Similarity 87.5%; Pred. No. 35;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 WLDGSGVTG 8
Db 181 WLDKGVGTG 188

RESULT 6
Q81HZ4_BACCR PRELIMINARY; PRT; 553 AA.
AC Q81HZ4;
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Trehalose-6-phosphate hydrolase (EC 3.2.1.93).
GN OrderedLocusNames=BC0632;
OS Bacillus cereus (strain ATCC 14579 / DSM 31).
OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus;
OC Bacillus cereus group.
OX NCBI_TaxID=226900;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=22608415; PubMed=12721630; DOI=10.1038/nature01582;
RA Ivanova N., Sorokin A., Anderson I., Galleron N., Candelon B.,
RA Kapatal V., Bhattacharyya A., Reznik G., Mikhailova N., Lapidus A.,
RA Chu L., Mazur M., Goltzman E., Larsen N., D'Souza M., Walunas T.,
RA Grechkin Y., Pusch G., Haecklorn R., Fonstein M., Ehrlich S.D.,
RA Overbeek R., Kyripides N.C.;
RT "Genome sequence of Bacillus cereus and comparative analysis with
RT Bacillus anthracis."
RL Nature 423:87-91(2003).
DR EMBL; AE017000; AAP07649.1; -; Genomic_DNA.
DR HSP; P21332; LUOK.
DR GO; GO:0008788; F:alpha,alpha-phosphotrehalase activity; IEA.
DR GO; GO:0004556; F:alpha-amyase activity; IEA.
DR GO; GO:0016798; F:hydrolase activity, acting on glycosyl bonds; IEA.
DR GO; GO:0005975; P:carbohydrate metabolism; IEA.
DR InterPro; IPR006047; Alpha_aml_cat.
DR InterPro; IPR006589; Alp_aml_cat_sub.
DR Pfam; PF00128; Alpha-amyase; 1.
DR SMART; SM00642; Amy; 1.
KW Complete proteome; Glycosidase; Hydrolase.
SQ SEQUENCE 553 AA; 65255 MW; 4B44C6662657B9F8 CRC64;

Query Match 84.0%; Score 42; DB 2; Length 553;
Best Local Similarity 87.5%; Pred. No. 35;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 WLDGSGVTG 8
Db 181 WLDKGVGTG 188

RESULT 7
Q73DL2_BACCI PRELIMINARY; PRT; 553 AA.
AC Q73DL2;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Trehalose-6-phosphate hydrolase (EC 3.2.1.93).
GN Name=treC; OrderedLocusNames=BC0700;
OS Bacillus cereus (strain ATCC 10987).
OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus;
OC Bacillus cereus group.
OX NCBI_TaxID=222523;
RN [1]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RA Brettin T.S., Bruce D., Challacombe J.F., Gilna P., Han C., Hill K.,

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RA Hitchcock P., Jackson P., Keim P., Longmire J., Lucas S., Okinaka R.,
RA Richardson P., Rubin E., Tice H.;
RT "Complete genome sequence of Bacillus anthracis Sterne.";
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; AE017026; AA24649.1; -; Genomic DNA.
DR EMBL; AE017334; AA29735.1; -; Genomic DNA.
DR EMBL; AE017225; AA25297.1; -; Genomic DNA.
DR HSP; P21332; LUOK.
DR TIGR; BA0632; -.
DR TIGR; GBA0632; -.
DR GO; GO:0004556; F:alpha-amylase activity; IEA.
DR GO; GO:0005975; F:hydrolase activity, acting on glycosyl bonds; IEA.
DR GO; GO:0005975; P:carbohydrate metabolism; IEA.
DR InterPro; IPR006047; Alpha_ami_cat.
DR InterPro; IPR006589; Alp_ami_cat_sub.
DR Pfam; PF00128; Alpha-amylase; 1.
DR SMART; SM00642; Amy; 1.
DR Complete proteome; Hydrolase.
KW Complete proteome; Hydrolase.
SQ SEQUENCE 553 AA; 65395 MW; DA6222EFBC73A3BFF CRC64;

Query Match 84.0%; Score 42; DB 2; Length 553;
Best Local Similarity 87.5%; Pred. No. 35;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WLDGVTG 8
   ||| ||||
Db 181 WLDKGVGTG 188

RESULT 9
ID Q6HN11 BACHK PRELIMINARY; PRT; 553 AA.
AC Q6HN11;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Alpha.alpha-phosphotrehalase (Trehalose-6-phosphate hydrolase)
DE (EC 3.2.1.93).
GN NameTrec; OrderedLocusNames=BT9727.0543;
OS Bacillus thuringiensis (subsp. konkukian).
OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus;
OC Bacillus cereus group.
OX NCBI_TaxID=180856;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=97-27;
RA Brettin T.S., Bruce D., Challacombe J.F., Gilna P., Han C., Hill K.,
RA Hitchcock P., Jackson P., Keim P., Longmire J., Lucas S., Okinaka R.,
RA Richardson P., Rubin E., Tice H.;
RT "Complete genome sequence of Bacillus thuringiensis 97-27.";
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; AE017355; AA26243.1; -; Genomic DNA.
DR GO; GO:0004556; F:alpha-amylase activity; IEA.
DR GO; GO:0016798; F:hydrolase activity, acting on glycosyl bonds; IEA.
DR GO; GO:0005975; P:carbohydrate metabolism; IEA.
DR InterPro; IPR006047; Alpha_ami_cat.
DR InterPro; IPR006589; Alp_ami_cat_sub.
DR Pfam; PF00128; Alpha-amylase; 1.
DR SMART; SM00642; Amy; 1.
DR Complete proteome.
KW Complete proteome.
SQ SEQUENCE 553 AA; 65432 MW; 76BFBD37083A3BFD CRC64;

Query Match 84.0%; Score 42; DB 2; Length 553;
Best Local Similarity 87.5%; Pred. No. 35;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WLDGVTG 8
   ||| ||||
Db 181 WLDKGVGTG 188

RESULT 10
Q63G13_BACZ
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ID Q63G13_BACZ PRELIMINARY; PRT; 553 AA.
AC Q63G13;
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Alpha.alpha-phosphotrehalase (Trehalose-6-phosphate hydrolase)
DE (EC 3.2.1.93).
GN NameTrec;
OS Bacillus cereus (strain ZK).
OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus;
OC Bacillus cereus group.
OX NCBI_TaxID=288681;
RN [1]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RA Brettin T.S., Bruce D., Challacombe J.F., Gilna P., Han C., Hill K.,
RA Hitchcock P., Jackson P., Keim P., Longmire J., Lucas S., Okinaka R.,
RA Richardson P., Rubin E., Tice H.;
RT "Complete genome sequence of Bacillus cereus ZK.";
RL Submitted (JUL-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CP000001; AA19698.1; -; Genomic DNA.
DR GO; GO:0008788; F:alpha.alpha-phosphotrehalase activity; IEA.
DR GO; GO:0004556; F:alpha-amylase activity; IEA.
DR GO; GO:0016798; F:hydrolase activity, acting on glycosyl bonds; IEA.
DR GO; GO:0005975; P:carbohydrate metabolism; IEA.
DR InterPro; IPR006047; Alpha_ami_cat.
DR InterPro; IPR006589; Alp_ami_cat_sub.
DR Pfam; PF00128; Alpha-amylase; 1.
DR SMART; SM00642; Amy; 1.
DR Complete proteome; Glycosidase; Hydrolase.
KW Complete proteome; Glycosidase; Hydrolase.
SQ SEQUENCE 553 AA; 65412 MW; 19004A3D30920519 CRC64;

Query Match 84.0%; Score 42; DB 2; Length 553;
Best Local Similarity 87.5%; Pred. No. 35;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WLDGVTG 8
   ||| ||||
Db 181 WLDKGVGTG 188

RESULT 11
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ID Q7UQJ1_RHOBA PRELIMINARY; PRT; 272 AA.
AC Q7UQJ1;
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Hypothetical protein.
GN OrderedLocusNames=RB6292;
OS Rhodopirellula baltica.
OC Bacteria; Planctomycetes; Planctomycetacia; Planctomycetales;
OC Planctomycetaceae; Pirellula.
OX NCBI_TaxID=117;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=1;
MEDLINE=22735913; PubMed=12835416; DOI=10.1073/pnas.1431443100;
RA Gloeckner F.O., Kube M., Bauer M., Teeling H., Lombardot T.,
RA Ludwig W., Gade D., Beck A., Borzym K., Heitmann K., Rabus R.,
RA Schlesner H., Amann R., Reinhardt R.;
RT "Complete genome sequence of the marine planctomycete Pirellula sp.
strain 1.";
RL Proc. Natl. Acad. Sci. U.S.A. 100:8298-8303(2003).
CC -1- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
CC -1- SIMILARITY: Belongs to the hlsA/hlsF family.
DR EMBL; BX294143; CAD74712.1; -; Genomic DNA.
DR GO; GO:0000105; P:histidine biosynthesis; IEA.
DR InterPro; IPR006062; His_biosynth.
DR InterPro; IPR003009; Related_FMN_bd.
DR Pfam; PF00977; His_biosynth; 1.
DR Amino-acid biosynthesis; Complete proteome; Histidine biosynthesis;
KW Hypothetical protein.
SQ SEQUENCE 272 AA; 29906 MW; 2247006D667B2C3C CRC64;
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Query Match      82.0%; Score 41; DB 2; Length 272;
Best Local Similarity 77.8%; Pred. No. 25;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 WLDGSGVTGS 9
   |||||
Db 109 WLDGSGVTGS 117

RESULT 12
Q4P7P7 USTMA PRELIMINARY; PRT; 954 AA.
AC Q4P7P7
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Hypothetical protein.
GN ORFNames=UM03866.1;
OS Ustilago maydis 521.
OC Eukaryota; Fungi; Basidiomycota; Ustilaginomycetes; Ustilaginaceae; Ustilago.
OC Ustilaginomycetidae; Ustilaginales; Ustilaginaceae; Ustilago.
OX NCBI_TaxID=237631;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=521;
RA Birren B., Nusbaum C., Abebe A., Abouelleil A., Adekoya E.,
  Alt-zahra M., Allen N., Allen T., An P., Anderson M., Anderson S.,
  Arachchi H., Armbruster J., Bachanteang P., Baldwin J., Barry A.,
  Bayul T., Blitshstein B., Bloom T., Blye J., Boguslavskiy L.,
  Borowsky M., Boukhgalter B., Brunache A., Butler J., Calixte N.,
  Calvo S., Camarata J., Campo K., Chang J., Cheshatsang Y., Citroen M.,
  Collamore A., Considine T., Cook A., Cooke P., Corum B., Cuomo C.,
  David R., Dawoe T., Degray S., Dodge S., Dooley K., Dorje P.,
  Dorjee K., Dorris L., Duffey N., Dupes A., Elkins T., Engels R.,
  Erickson J., Farina K., Ferreira P., Fischer H.,
  Fitzgerald M., Foley K., Gage D., Galagan J., Gearin G., Gierre S.,
  Gierke A., Goyette A., Graham J., Grandbois E., Gyaltsen K., Hafez N.,
  Hagopian D., Hagos B., Hall J., Hatcher B., Heiler A., Higgins H.,
  Honan T., Horn A., Houde N., Hughes L., Hulme W., Husby E., Iliev I.,
  Jaffe D., Jones C., Kanai M., Kamat A., Kanvassellis M., Karlsson B.,
  Kells C., Kieu A., Kisner P., Kodira C., Kulbokas E., Labutti K.,
  Lama D., Landers T., Leger J., Levine S., Lewis D., Lewis T.,
  Lindblad-toh K., Liu X., Lokyitsang T., Lokyitsang Y., Lucien O.,
  Lui A., Ma L.J., Mabbitt R., MacDonald J., Maclean C., Major J.,
  Manning J., Marabella R., Maru K., Matthews C., Mauceli E.,
  McCarthy M., McDonough S., McGhee T., Meldrim J., Meneus L.,
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  Mozes J., Mulrain L., Munson G., Naylor J., Neues C., Nguyen C.,
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  Norbu N., O'donnell P., Okoawo O., O'leary S., Omotohno B.,
  O'Neill K., Osman S., Parker S., Perrin D., Phunkhang P., Pignani B.,
  Purcell S., Rachupka T., Ramasamy U., Rameau R., Ray V., Raymond C.,
  Retta R., Richardson S., Rise C., Rodriguez J., Rogers J., Rogov P.,
  Rutman M., Schupbach R., Seaman C., Settupalli S., Sharpe T.,
  Sheridan J., Sherpa N., Shi J., Smirnov S., Smith C., Sougnez C.,
  Spencer B., Stalker J., Stange-thomann N., Stavropoulos S.,
  Stetson K., Stone C., Stone S., Stubbs M., Talamas J., Tchuinga P.,
  Tenzing P., Tesfaye S., Theodore J., Thoultsang Y., Topham K.,
  Towey S., Tsamla T., Tsomo N., Vallee D., Vassiliev H.,
  Venkataraman V., Vinson J., Vo A., Wade C., Wang S., Wangchuk T.,
  Wangdi T., Whittaker C., Wilkinson J., Wu Y., Wyman D., Yadav S.,
  Yang S., Yang X., Yeager S., Yee E., Young G., Zainoun J., Zembeck L.,
  Zimmer A., Zody M., Lander E.;
RT "The genome sequence of Ustilago maydis."
RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
CC -!- CAUTION: The sequence shown here is derived from an
CC preliminary data.
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
CC EMBL; AACP0100131; EAK84772.1; -; Genomic_DNA.
DR Hypothetical protein.
KW SEQUENCE 954 AA; 107394 MW; 490F2E82B7C4EC0D CRC64;
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Query Match      82.0%; Score 40; DB 2; Length 177;
Best Local Similarity 77.8%; Pred. No. 25;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 WLDGSGVTGS 9
   |||||
Db 147 WLDGSGVTGS 155

RESULT 13
Q659U2 PHOVI PRELIMINARY; PRT; 177 AA.
AC Q659U2
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Parathyroid hormone related protein (Fragment).
GN Name=pthlp;
OS Phoca vitulina (Harbor seal).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Pinnipedia; Phocidae;
OC Phoca.
OX NCBI_TaxID=9720;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=lung;
RA Hammond H.A., Bennett K.A., Walton M.J., Hall A.J.;
RT "Molecular cloning and expression of leptin from seals and its
  potential role in the control of pinniped pulmonary surfactant
  secretion."
RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=lung;
RA Hammond J.A.;
RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; AJ831411; CAH39862.1; -; mRNA.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003626; PTH related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH related; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
FT NON TER 177
SQ SEQUENCE 177 AA; 20284 MW; 6E9941EBD22F5397 CRC64;

Query Match      80.0%; Score 40; DB 2; Length 177;
Best Local Similarity 77.8%; Pred. No. 25;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 WLDGSGVTGS 9
   |||||
Db 147 WLDGSGVTGS 155

RESULT 14
Q659U3 HALGR PRELIMINARY; PRT; 177 AA.
AC Q659U3
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Parathyroid hormone related protein (Fragment).
GN Name=pthlp;
OS Halichoerus grypus (Gray seal).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Pinnipedia; Phocidae;
OC Halichoerus.
OX NCBI_TaxID=9711;
RN [1]
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RP NUCLEOTIDE SEQUENCE.
 RC TISSUE=Lung;
 RA Hammond H.A.; Bennett K.A., Walton M.J., Hall A.J.;
 RT "Molecular cloning and expression of leptin from seals and its
 RT potential role in the control of pinniped pulmonary surfactant
 RT secretion.";
 RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
 RN [2]

RN NUCLEOTIDE SEQUENCE.
 RC TISSUE=Lung;
 RA Hammond J.A.;
 RL Submitted (SEP-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AJ831410; CAH39861.1; -; mRNA.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007595; P:lactation; IEA.
 DR InterPro; IPR001415; Parathyrd hrm.
 DR InterPro; IPR003626; PTH-related.
 DR Pfam; PF01279; Parathyroid; 1.
 DR ProDom; PD013225; PTH-related; 1.
 DR SMART; SM00087; PTH; 1.
 DR PROSITE; PS00335; PARATHYROID; 1.
 FT NON TER 177 177
 SQ SEQUENCE 177 AA; 20284 MW; 6E9941EBD22F5397 CRC64;

Query Match 80.0%; Score 40; DB 2; Length 177;
 Best Local Similarity 77.8%; Pred. No. 25;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
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 Db 147 WLNSGVAGS 155

RESULT 15
 Q5C704 SCHJA
 ID Q5C704 SCHJA PRELIMINARY; PRT; 188 AA.
 AC Q5C704;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
 DE Hypothetical protein.
 OS Schistosoma japonicum (Blood fluke).
 OC Eukaryota; Metazoa; Platyhelminthes; Trematoda; Digenea; Strigeidida;
 OC Schistosomatoidea; Schistosomatidae; Schistosoma.
 OX NCBI_TaxID=6182;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Han Z.;
 RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AY808681; AAX24570.1; -; mRNA.
 DR InterPro; IPR001524; Glyco_hydro_6.
 KW Hypothetical protein.
 SQ SEQUENCE 188 AA; 20268 MW; 6BD5AE5316B9013C CRC64;

Query Match 80.0%; Score 40; DB 2; Length 188;
 Best Local Similarity 87.5%; Pred. No. 27;
 Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 WLDGVTG 8
 |||||||
 Db 89 WLDGSGTG 96

Search completed: December 2, 2005, 23:19:41
 Job time : 30.2281 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:28:10 ; Search time 6.11798 Seconds
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Title: US-10-691-125-4
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Scoring table: BLOSUM62
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Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
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Listing first 45 summaries

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 - 2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
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 - 5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
 - 6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	50	100.0	32	2	US-09-623-548A-305
2	50	100.0	32	2	US-09-657-276-305
3	50	100.0	33	1	US-08-064-111C-2
4	50	100.0	33	2	US-09-623-548A-306
5	50	100.0	33	2	US-09-657-276-306
6	50	100.0	56	6	5217896-7
7	50	100.0	141	1	US-08-411-726-5
8	50	100.0	141	6	5217896-3
9	50	100.0	177	2	US-09-643-597-165
10	50	100.0	177	2	US-09-643-597-166
11	50	100.0	177	2	US-09-480-884A-165
12	50	100.0	177	2	US-09-480-884A-166
13	50	100.0	177	2	US-09-542-615A-165
14	50	100.0	177	2	US-09-542-615A-166
15	50	100.0	177	2	US-09-606-421B-165
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17	50	100.0	177	2	US-09-976-594-447
18	50	100.0	177	2	US-09-466-396A-165
19	50	100.0	177	2	US-09-466-396A-166
20	50	100.0	177	2	US-09-476-496A-165
21	50	100.0	177	2	US-09-476-496A-166
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23	50	100.0	177	2	US-09-630-940B-166
24	50	100.0	177	2	US-09-285-479-165
25	50	100.0	177	2	US-09-285-479-166
26	50	100.0	177	2	US-10-007-700-165
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29	50	100.0	256	2	US-09-949-016-10164	Sequence 10164, A
30	38	76.0	435	1	US-08-374-155A-5	Sequence 5, Appli
31	38	76.0	435	1	US-08-785-396-5	Sequence 5, Appli
32	38	76.0	435	2	US-10-061-269-5	Sequence 5, Appli
33	38	76.0	593	1	US-08-374-155A-14	Sequence 14, Appli
34	38	76.0	593	1	US-08-785-396-14	Sequence 14, Appli
35	38	76.0	593	2	US-10-061-269-14	Sequence 14, Appli
36	38	76.0	597	1	US-08-374-155A-12	Sequence 12, Appli
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38	38	76.0	597	2	US-10-061-269-12	Sequence 12, Appli
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ALIGNMENTS

RESULT 1
US-09-623-548A-305
; Sequence 305, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudeau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 305
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-305

Query Match 100.0%; Score 50; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.029;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 WLDGVTGS 9
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DB 5 WLDGVTGS 13
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RESULT 2
US-09-657-276-305
; Sequence 305, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique

; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 305
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-657-276-305

Query Match 100.0%; Score 50; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.029;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db |||||
5 WLDGVTGS 13

RESULT 3
US-08-064-111C-2
; Sequence 2, Application US/08064111C
; Patent No. 5688760
; GENERAL INFORMATION:
; APPLICANT: Kemp, Bruce E.
; APPLICANT: Nicholson, Geoffrey C.
; APPLICANT: Martin, Thomas J.
; APPLICANT: Fenton, Anna J.
; APPLICANT: Hammond, R. Glenn
; TITLE OF INVENTION: COMPOUNDS AND COMPOSITIONS WHICH INHIBIT
; TITLE OF INVENTION: BONE RESORPTION
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Flehr, Hohbach, Test, Albritton & Herbert,
; ADDRESSEE: Attn: W.H. Dreger
; STREET: 4 Embarcadero Center, Suite 3400
; CITY: San Francisco
; STATE: California
; COUNTRY: United States
; ZIP: 94111-4187
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/064,111C
; FILING DATE: 12-AUG-1993
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/AU91/00580
; FILING DATE: 13-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: AU PK9567
; FILING DATE: 19-NOV-1991
; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: AU PK3879
; FILING DATE: 13-DEC-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Dreger, Walter H.
; REGISTRATION NUMBER: 24,190
; REFERENCE/DOCKET NUMBER: A-58456/WH
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 781-1989
; TELEFAX: (415) 398-3249
; TELEX: 910 277299
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 33 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-064-111C-2

Query Match 100.0%; Score 50; DB 1; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.03;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db |||||
5 WLDGVTGS 13

RESULT 4
US-09-623-548A-306
; Sequence 306, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 306
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-306

Query Match 100.0%; Score 50; DB 2; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.03;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db |||||
3 WLDGVTGS 11

RESULT 5
US-09-657-276-306

; Sequence 306, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 306
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-657-276-306

Query Match 100.0%; Score 50; DB 2; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.03; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 WLDGVTGS 9
Db 3 WLDGVTGS 11

RESULT 6
5217896-7
; Patent No. 5217896
; APPLICANT: KRAMER, STEVEN P.; VALENZUELA, DAVID M.; REYNOLDS
; JR., FREDERICK H.; SORVILLO, JOHN M.
; TITLE OF INVENTION: MONOCLONAL ANTIBODIES RECOGNIZING
; PARATHYROID HORMONE-LIKE PROTEIN
; NUMBER OF SEQUENCES: 8
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/292,263
; FILING DATE: 30-DEC-1988
; SEQ ID NO: 7;
; LENGTH: 56
5217896-7

Query Match 100.0%; Score 50; DB 6; Length 56;
Best Local Similarity 100.0%; Pred. No. 0.052; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 WLDGVTGS 9
Db 26 WLDGVTGS 34

RESULT 7
US-08-411-726-5
; Sequence 5, Application US/08411726
; Patent No. 5880093
; GENERAL INFORMATION:
; APPLICANT: BAGNOLI, Franco
; TITLE OF INVENTION: Use of Parathormone, Its Biologically
; TITLE OF INVENTION: Active Fragments and Correlated Peptides, for The Preparation

; TITLE OF INVENTION: Pharmaceutical Compositions Useful for The Treatment of Pregnar
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Kenyon & Kenyon
; STREET: 1 Broadway
; CITY: New York
; STATE: NY
; COUNTRY: US
; ZIP: 10004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS 6.2
; SOFTWARE: WordPerfect 6.1 for Windows
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/411,726
; FILING DATE: 05-APR-1995
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/EP93/02755
; FILING DATE: 08-OCT-1993
; APPLICATION NUMBER: MI-92A002331
; FILING DATE: 09-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: PALMESE, Maria Luisa
; REGISTRATION NUMBER: 34,402
; REFERENCE/DOCKET NUMBER: 2111/1300
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-425-7200
; TELEFAX: 212-425-5288
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 141 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-411-726-5

Query Match 100.0%; Score 50; DB 1; Length 141;
Best Local Similarity 100.0%; Pred. No. 0.14; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 WLDGVTGS 9
Db 111 WLDGVTGS 119

RESULT 8
5217896-3
; Patent No. 5217896
; APPLICANT: KRAMER, STEVEN P.; VALENZUELA, DAVID M.; REYNOLDS
; JR., FREDERICK H.; SORVILLO, JOHN M.
; TITLE OF INVENTION: MONOCLONAL ANTIBODIES RECOGNIZING
; PARATHYROID HORMONE-LIKE PROTEIN
; NUMBER OF SEQUENCES: 8
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/292,263
; FILING DATE: 30-DEC-1988
; SEQ ID NO: 3;
; LENGTH: 141
5217896-3

Query Match 100.0%; Score 50; DB 6; Length 141;
Best Local Similarity 100.0%; Pred. No. 0.14; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 WLDGVTGS 9
Db 111 WLDGVTGS 119

RESULT 9

US-09-643-597-165
; Sequence 165, Application US/09643597
; Patent No. 6426072
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; APPLICANT: Henderson, Robert A.
; APPLICANT: McNeill, Patricia D.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C11
; CURRENT APPLICATION NUMBER: US/09/643,597
; CURRENT FILING DATE: 2000-08-21
; NUMBER OF SEQ ID NOS: 369
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-643-597-165

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 147 WLDGVTGS 155

RESULT 10
US-09-643-597-166
; Sequence 166, Application US/09643597
; Patent No. 6426072
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; APPLICANT: Henderson, Robert A.
; APPLICANT: McNeill, Patricia D.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C11
; CURRENT APPLICATION NUMBER: US/09/643,597
; CURRENT FILING DATE: 2000-08-21
; NUMBER OF SEQ ID NOS: 369
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-643-597-166

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 147 WLDGVTGS 155

RESULT 11
US-09-480-884A-165
; Sequence 165, Application US/09480884A
; Patent No. 6482597
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; FILE REFERENCE: 210121.455C6
; CURRENT APPLICATION NUMBER: US/09/480,884A
; CURRENT FILING DATE: 2001-08-27
; NUMBER OF SEQ ID NOS: 330
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-480-884A-165

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 147 WLDGVTGS 155

RESULT 12
US-09-480-884A-166
; Sequence 166, Application US/09480884A
; Patent No. 6482597
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; FILE REFERENCE: 210121.455C6
; CURRENT APPLICATION NUMBER: US/09/480,884A
; CURRENT FILING DATE: 2001-08-27
; NUMBER OF SEQ ID NOS: 330
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-480-884A-166

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 147 WLDGVTGS 155

RESULT 13
US-09-542-615A-165
; Sequence 165, Application US/09542615A
; Patent No. 6518256
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun

; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; FILE REFERENCE: 210121.455C8
; CURRENT APPLICATION NUMBER: US/09/542,615A
; CURRENT FILING DATE: 2000-04-14
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-542-615A-165

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 147 WLDGVTGS 155

RESULT 14
US-09-542-615A-166
; Sequence 166, Application US/09542615A
; Patent No. 6518256
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; FILE REFERENCE: 210121.455C8
; CURRENT APPLICATION NUMBER: US/09/542,615A
; CURRENT FILING DATE: 2000-04-14
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-542-615A-166

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 147 WLDGVTGS 155

RESULT 15
US-09-606-421B-165
; Sequence 165, Application US/09606421B
; Patent No. 6531315
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skelky, Yasir A.W.

; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C9
; CURRENT APPLICATION NUMBER: US/09/606,421B
; CURRENT FILING DATE: 2000-06-28
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-606-421B-165

Query Match 100.0%; Score 50; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 147 WLDGVTGS 155

Search completed: December 2, 2005, 22:38:22
Job time : 6.11798 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:03:56 ; Search time 24.8764 Seconds
(without alignments)
158.962 Million cell updates/sec

Title: US-10-691-125-5
Perfect score: 42
Sequence: 1 TSTTSLELD 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*
1: Geneseq1980s:*
2: Geneseq1990s:*
3: Geneseq2000s:*
4: Geneseq2001s:*
5: Geneseq2002s:*
6: Geneseq2003as:*
7: Geneseq2003bs:*
8: Geneseq2004s:*
9: Geneseq2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	42	100.0	9	8	Adh77313 Yeast kil
2	42	100.0	9	9	Adw99594 Human par
3	42	100.0	12	5	Aau77911 Human PTH
4	42	100.0	24	8	Adk98649 Parathyro
5	42	100.0	32	4	Ab91131 Parathyro
6	42	100.0	33	4	AA91132 Parathyro
7	42	100.0	33	5	Aau77907 Human PTH
8	42	100.0	33	8	Adk98653 Parathyro
9	42	100.0	33	8	Adk98658 Human par
10	42	100.0	33	8	Adk98656 Parathyro
11	42	100.0	34	2	AA26411 C-termina
12	42	100.0	56	2	AA41539 Synthetic
13	42	100.0	79	2	Aar06980 pThrP(B)
14	42	100.0	133	5	Aae23744 Human par
15	42	100.0	135	5	Aae23745 Human par
16	42	100.0	139	5	AA014630 Human PTH
17	42	100.0	139	5	Abb04991 Human par
18	42	100.0	139	5	Aae23750 Human par
19	42	100.0	139	8	ADP04402 Human par
20	42	100.0	141	2	AAW99452 Human par
21	42	100.0	141	5	AA014631 Human PTH
22	42	100.0	141	5	Abb04992 Human par
23	42	100.0	141	5	Aae23749 Human par
24	42	100.0	141	8	Adp04403 Human par

25	42	100.0	141	9	ADW99590	Adw99590 Human par
26	42	100.0	173	5	AA014632	AA014632 Human PTH
27	42	100.0	173	5	Abb04993	Abb04993 Human par
28	42	100.0	173	8	ADP04404	ADP04404 Human par
29	42	100.0	175	6	ABU56498	ABU56498 Lung canc
30	42	100.0	175	6	ABU56578	ABU56578 Lung canc
31	42	100.0	175	6	ABR92141	ABR92141 Human cer
32	42	100.0	175	8	ADJ36543	ADJ36543 Human pro
33	42	100.0	175	8	ADK98647	ADK98647 Human par
34	42	100.0	175	8	ADU06427	ADU06427 Novel bro
35	42	100.0	177	1	AP80303	AP80303 Sequence
36	42	100.0	177	1	AA80304	AA80304 Sequence
37	42	100.0	177	2	AAW12724	AAW12724 PTH-Like
38	42	100.0	177	2	AA41037	AA41037 Human lun
39	42	100.0	177	2	AA41038	AA41038 Human lun
40	42	100.0	177	3	AA11323	AA11323 Human lun
41	42	100.0	177	3	AB11322	AB11322 Human lun
42	42	100.0	177	5	ABB74954	ABB74954 Human lun
43	42	100.0	177	5	ABB74955	ABB74955 Human lun
44	42	100.0	177	5	ABP61874	ABP61874 Human lun
45	42	100.0	177	5	ABP61875	ABP61875 Human lun

ALIGNMENTS

RESULT 1
ADH77313
ID ADH77313 standard; peptide; 9 AA.
XX AC ADH77313;
XX AC
DT 15-APR-2004 (first entry)
XX
DE Yeast killer toxin-related control peptide #1.
XX
KW variable region; anti-idiotypic antibody; yeast killer toxin;
KW microbial infection; viral infection; candidosis; aspergillosis;
KW cryptococcosis; sporothrychosis; blastomycosis; histoplasmosis; thrush;
KW tuberculosis; mycobacteriosis; respiratory infection; scarlet fever;
KW pneumonia; impetigo; rheumatic fever; sepsis; septicaemia;
KW cutaneous leishmaniasis; visceral leishmaniasis; keratitis;
KW cystic fibrosis; typhoid fever; gastroenteritis; flu; influenza; HIV;
KW AIDS; H6; control peptide.
XX
OS Synthetic.

XX WO2003095493-A2.
XX
PD 20-NOV-2003.
XX
PF 09-MAY-2003; 2003WO-IB002348.
XX
PR 10-MAY-2002; 2002GB-00010783.
XX
PA (UYSI-) UNIV SIENA.
PA (POLO/) POLONELLI L.
PA (CASS/) CASSONE A.
XX
XX Polonelli L, Cassone A;
XX WPI; 2004-012091/01.

XX New toxin-related polypeptides comprising a fragment of a variable region
PT of an anti-idiotypic antibody which recognizes the idiotope of an
PT antibody specific for a yeast killer toxin, useful for treating microbial
PT or viral infections.

PS Disclosure; SEQ ID NO 28; 70pp; English.

XX The invention comprises a polypeptide which contains a part of the
CC variable region of an anti-idiotypic antibody which recognizes the
CC idiotope of an antibody specific for a yeast killer toxin. The

CC polypeptide of the invention is useful for the treatment of microbial and
 CC viral infections, such as: candidosis, aspergillosis, cryptococcosis,
 CC mycobacteriosis, blastomycosis, histoplasmosis, thrush, tuberculois,
 CC spirochaetosis, respiratory infections, scarlet fever, pneumonia,
 CC impetigo, rheumatic fever, sepsis, septicaemia, cutaneous and visceral
 CC leishmaniasis, keratitis, cystic fibrosis, typhoid fever, gastroenteritis
 CC and haemolytic-uremic syndrome, flu, influenza or HIV/AIDS. The present
 CC amino acid sequence represents a peptide which was used as a control in
 CC the exemplification of the invention.

XX SQ Sequence 9 AA;

Query Match 100.0%; Score 42; DB 8; Length 9;

Best Local Similarity 100.0%; Pred. No. 2e+06;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9

Db 1 TSTTSLELD 9

RESULT 2

ADW99594

ID ADW99594 standard; peptide; 9 AA.

AC ADW99594;

XX 21-APR-2005 (first entry)

XX Human parathyroid hormone-related peptide PTR-4.

XX recombinant protein; cytostatic; vaccine; immune stimulation;

KW immunostimulatory; parathyroid hormone related peptide; tumor;

KW metastasis.

OS Homo sapiens.

XX US2005033023-A1.

XX 10-FEB-2005.

XX 21-OCT-2003; 2003US-00691125.

XX 21-OCT-2002; 2002US-0420165P.

XX (CORR/) CORREALE P.

PA (CUI/) CUSI M G.

PA (FRAN/) FRANCINI G.

XX Correale P, Cusi MG, Francini G;

PI WPI; 2005-151693/16.

XX Novel isolated immunostimulatory parathyroid hormone related peptide (PTH
 PT -rP), useful for immunizing and treating subjects against metastases and
 PT tumors.

XX Claim 2; SEQ ID NO 5; 35pp; English.

XX The invention relates to an isolated immunostimulatory parathyroid
 CC hormone related peptide (PTH-rP) (I) comprising a fragment of the amino
 CC acid sequence of a fully defined sequence (SI) of 141 amino acids as
 CC given in the specification, or its functional variant comprising one or
 CC more amino acid additions, substitution or deletions. (I) is useful for
 CC generating T cells active against PTH-rP expressing tumors and
 CC metastasis, which involves stimulating T cells in the presence of antigen
 CC presenting cells that have been exposed to (I). The antigen presenting
 CC cells have been infected with virosomes containing PTH-rP plasmids,
 CC virosomes encapsulating (I) or virosomes comprising (I) crosslinked to
 CC its surface. (I) is useful for generating a T cell response specific for
 CC PTH-rP, which involves immunizing a subject with (I). The protein, an
 CC epitope from it, DNA encoding it, vectors and host cells are useful for
 CC inducing an immune response against PTH-rP expressing tumors and

CC metastasis, by immunization. They are useful for treating PTH-rP
 CC expressing tumors and metastasis, immunizing a subject against metastasis
 CC and tumors or for preventing the occurrence or recurrence of PTH-rP
 CC expressing tumors and metastasis. This sequence corresponds to a peptide
 CC from the human PTH-rP protein.

XX SQ Sequence 9 AA;

Query Match 100.0%; Score 42; DB 9; Length 9;

Best Local Similarity 100.0%; Pred. No. 2e+06;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9

Db 1 TSTTSLELD 9

RESULT 3

AAU77911

ID AAU77911 standard; peptide; 12 AA.

XX AAU77911;

XX 05-JUN-2002 (first entry)

XX Human PTHrP fragment (residues 128-139) resulting from secPHEX cleavage.

XX Human; bone-related disorder; osteogenesis; secPHEX; endopeptidase;

KW phosphate regulating gene; osteocalcin; teeth; bone mass; bone growth;

KW osteopenia; osteoporosis; rickets; X-linked hypophosphataemic rickets;

KW orthopaedic; osteopathic; dental intervention; PTHrP.

XX Homo sapiens.

XX WO200215918-A2.

XX 28-FEB-2002.

XX 23-AUG-2001; 2001WO-CA001220.

XX 23-AUG-2000; 2000US-0227012P.

XX (UYMO-) UNIV MONTREAL.

XX Boileau G;

XX WPI; 2002-280858/32.

XX Preventing or treating bone-related disorder or condition requiring

PT osteogenesis in mammals, by administering secPHEX or its mutant, a

PT substance that binds to osteocalcin or antibody specific to osteocalcin.

XX Disclosure; Fig 4; 52pp; English.

XX The present invention relates to a method for preventing or treating a
 CC bone-related disorder or condition that involves osteogenesis in mammals.
 CC The method comprises administering secPHEX (a phosphate regulating gene
 CC with homologues to Endopeptidases on the X chromosome), secPHEX851V, a
 CC substance capable of binding to osteocalcin, or an antibody specific to
 CC osteocalcin. PHEX activity can be increased by inhibiting osteocalcin.
 CC Since PHEX is generally associated with the growth plane of bone or teeth
 CC and the absence of osteocalcin with increased bone mass, potentiation of
 CC PHEX activity can promote bone growth. The invention also provides
 CC several new substrates for measuring PHEX enzyme activity. The method of
 CC the invention is useful for preventing or treating bone-related
 CC disorders, such as osteopenia, osteoporosis, rickets, X-linked
 CC hypophosphataemic rickets, and conditions such as orthopaedic and dental
 CC intervention. The present peptide sequence represents a human PTHrP
 CC fragment resulting from secPHEX cleavage

XX SQ Sequence 12 AA;

Query Match 100.0%; Score 42; DB 5; Length 12;

Best Local Similarity 100.0%; Pred. No. 0.15; Mismatches 0; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
| | | | |
Db 2 TSTTSLELD 10

RESULT 4
ADK98649
ID ADK98649 standard; peptide; 24 AA.
XX
AC ADK98649;
XX
XX
XX 20-MAY-2004 (first entry)
XX
XX Parathyroid hormone related protein (PTHrP) related peptide seqid 5.
XX
XX cytostatic; antiasthmatic; hypotensive; hepatotropic;
KW antiarteriosclerotic; uropathic; vasotrophic;
KW parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
KW retinoblastoma; p27kip1;
KW smooth muscle cell proliferation-associated disorder;
KW uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
KW portal hypertension; cirrhosis; pulmonary arterial hypertension;
KW systemic arterial hypertension; atherosclerosis; bladder disease;
KW vascular restenosis; angioplasty.
XX
XX Homo sapiens.
OS
XX WO2004016151-A2.
XX
XX 26-FEB-2004.
XX
XX 13-AUG-2003; 2003WO-US025473.
XX
XX 15-AUG-2002; 2002US-0403805P.
XX
XX (OSTE-) OSTEOTROPIN LLC.
XX
XX Stewart AF, Fiaschi-Taesch N;
XX
XX WPI; 2004-192051/18.
XX
XX New compound comprising a parathyroid hormone-related protein (PTHrP)
PT mutant polypeptide, useful for treating or preventing smooth muscle cell
PT proliferation-associated disorders, such as atherosclerosis or bronchial
PT asthma.
XX
XX Claim 46; SEQ ID NO 5; 100pp; English.

The invention describes a compound comprising a parathyroid hormone-related protein (PTHrP) mutant polypeptide (I). (I) has the following characteristics: the compound lacks a functional nuclear localisation signal, or has a functional nuclear localisation signal and one or more modified amino acids in the region of PTHrP(112-139); overexpressing the compound in a vascular smooth muscle cell decreases the level of phosphorylated immunoreactive retinoblastoma polypeptide compared to the level of phosphorylated immunoreactive retinoblastoma polypeptide observed in the absence of the compound; and overexpressing the compound in a vascular smooth muscle cell increases the level of immunoreactive p27kip1 polypeptide compared to the level of immunoreactive p27kip1 polypeptide observed in the absence of the compound. (I) is useful for treating or preventing a smooth muscle cell proliferation-associated disorder, particularly in humans, such as uterine fibroid tumours, prostatic hypertrophy, bronchial asthma, portal hypertension in cirrhosis, pulmonary arterial hypertension, systemic arterial hypertension, atherosclerosis, bladder disease, and vascular restenosis after angioplasty. (I) is also useful in the manufacture of a medicament for treating smooth muscle cell proliferation-associated disorders. This is the amino acid sequence of human parathyroid hormone related protein (PTHrP) residues 112-120 that can be deleted from human PTHrP in the creation of a mutant of the invention.

XX
SQ Sequence 24 AA;
Query Match 100.0%; Score 42; DB 8; Length 24;
Best Local Similarity 100.0%; Pred. No. 0.33;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
| | | | |
Db 14 TSTTSLELD 22

RESULT 5
AAB91131
ID AAB91131 standard; peptide; 32 AA.
XX
AC AAB91131;
XX
XX 22-JUN-2001 (first entry)
XX
XX Parathyroid hormone related protein (PTHrP) peptide SEQ ID NO:305.
XX
XX Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
XX Homo sapiens.
OS
XX Synthetic.
XX
XX WO200069900-A2.
XX
XX 23-NOV-2000.
XX
XX 17-MAY-2000; 2000WO-US013576.
XX
XX 17-MAY-1999; 99US-0134406P.
PR 10-SEP-1999; 99US-0153406P.
PR 15-OCT-1999; 99US-0159783P.
XX
XX (CONJ-) CONJUCHEM INC.
XX
XX Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
XX WPI; 2001-112059/12.
XX
XX Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity.
XX
XX Disclosure; Page 293-294; 733pp; English.

The present invention describes a modified therapeutic peptide (I) comprising a therapeutically active amino acid region (III) and a reactive group (II) (e.g. succinimidyl and maleimido groups) attached to a less therapeutically active amino acid region (IV), which covalently bonds with amino/hydroxyl/thiol groups on blood components to form a peptidase stabilised therapeutic peptide composed of 3-50 amino acids. (I) are useful for modifying therapeutic peptides e.g. hormones, growth factors and neurotransmitters, to protect them from peptidase activity in vivo for the treatment of various disorders. Endogenous therapeutic peptides are not suitable as drug candidates as they require frequent administration due to rapid degradation by peptidases in the body. CC Modifying and attaching therapeutic peptides to albumin prevents or CC reduces the action of peptidases to increase length of activity (half CC life) and specificity as bonding to large molecules decreases CC intracellular uptake and interference with physiological processes. CC AAB90829 to AAB92441 represent peptides which can be used in the CC exemplification of the present invention

XX
SQ Sequence 32 AA;
Query Match 100.0%; Score 42; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.45;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 6
AAB91132
ID AAB91132 standard; peptide; 33 AA.

XX AAB91132;
XX 22-JUN-2001 (first entry)
XX Parathyroid hormone related protein (PTHrP) peptide SEQ ID NO:306.

XX Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidy; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX Homo sapiens.
OS Synthetic.

XX WO200069900-A2.

XX 23-NOV-2000.

XX 17-MAY-2000; 2000WO-US013576.

XX 17-MAY-1999; 99US-0134406P.

XX 10-SEP-1999; 99US-0153406P.

XX 15-OCT-1999; 99US-0159783P.

XX (CONJ-) CONJUCHEM INC.

XX Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;

XX WPI; 2001-112059/12.

XX Modifying and attaching therapeutic peptides to albumin prevents

XX peptidase degradation, useful for increasing length of in vivo activity.

XX Disclosure; Page 294; 733pp; English.

XX The present invention describes a modified therapeutic peptide (I) comprising a therapeutically active amino acid region (III) and a reactive group (II) (e.g. succinimidy and maleimido groups) attached to a less therapeutically active amino acid region (IV), which covalently bonds with amino/hydroxyl/thiol groups on blood components to form a peptidase stabilised therapeutic peptide composed of 3-50 amino acids. (I) are useful for modifying therapeutic peptides e.g. hormones, growth factors and neurotransmitters, to protect them from peptidase activity in vivo for the treatment of various disorders. Endogenous therapeutic peptides are not suitable as drug candidates as they require frequent administration due to rapid degradation by peptidases in the body. Modifying and attaching therapeutic peptides to albumin prevents or reduces the action of peptidases to increase length of activity (half life) and specificity as bonding to large molecules decreases intracellular uptake and interference with physiological processes. AAB90829 to AAB92441 represent peptides which can be used in the exemplification of the present invention

XX Sequence 33 AA;

Query Match 100.0%; Score 42; DB 4; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
Db 21 TSTTSLELD 29

RESULT 7
AAU77907

ID AAU77907 standard; peptide; 33 AA.

XX AAU77907;

XX 05-JUN-2002 (first entry)

XX Human PTHrP residues 107-139, useful as PHEX substrate.

XX Human; bone-related disorder; osteogenesis; secPHEX; endopeptidase;
KW phosphate regulating gene; osteocalcin; teeth; bone mass; bone growth;
KW osteopenia; osteoporosis; rickets; X-linked hypophosphataemic rickets;
KW orthopaedic; osteopathic; dental intervention; PTHrP; PHEX substrate.

XX Homo sapiens.

XX Key Location/Qualifiers

XX Cleavage-site 6..7 /label= secPHEX_cleavage_site

XX Cleavage-site 21..22 /label= secPHEX_cleavage_site

XX Cleavage-site 30..31 /label= secPHEX_cleavage_site

XX WO200215918-A2.

XX 28-FEB-2002.

XX 23-AUG-2001; 2001WO-CA001220.

XX 23-AUG-2000; 2000US-0227012P.

XX (UYMO-) UNIV MONTREAL.

XX Boileau G;

XX WPI; 2002-280858/32.

XX Preventing or treating bone-related disorder or condition requiring
PT osteogenesis in mammals, by administering secPHEX or its mutant, a
PT substance that binds to osteocalcin or antibody specific to osteocalcin.

XX Disclosure; Fig 4; 52pp; English.

XX The present invention relates to a method for preventing or treating a bone-related disorder or condition that involves osteogenesis in mammals. The method comprises administering secPHEX (a phosphate regulating gene with homologies to Endopeptidases on the X chromosome), secPHEX81V, a substance capable of binding to osteocalcin, or an antibody specific to osteocalcin. PHEX activity can be increased by inhibiting osteocalcin. Since PHEX is generally associated with the growth plane of bone or teeth and the absence of osteocalcin with increased bone mass, potentiation of PHEX activity can promote bone growth. The invention also provides several new substrates for measuring PHEX enzyme activity. The method of the invention is useful for preventing or treating bone-related disorders, such as osteopenia, osteoporosis, rickets, X-linked hypophosphataemic rickets, and conditions such as orthopaedic and dental intervention. The present peptide sequence representing human PTHrP residues 107-139 is useful as a PHEX substrate

XX Sequence 33 AA;

Query Match 100.0%; Score 42; DB 5; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 8

ADK98653	ADK98653 standard; peptide; 33 AA.
XX AC	ADK98653;
XX AC	ADK98653;
DT DT	20-MAY-2004 (first entry)
DE DE	Parathyroid hormone related protein (PTHrP) related peptide seqid 9.
XX KW	cytostatic; antiasthmatic; hypotensive; hepatotropic;
XX KW	antiarteriosclerotic; uropathic; vasotropic;
XX KW	parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
XX KW	retinoblastoma; p27kip1;
XX KW	smooth muscle cell proliferation-associated disorder;
XX KW	uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
XX KW	portal hypertension; cirrhosis; pulmonary arterial hypertension;
XX KW	systemic arterial hypertension; atherosclerosis; bladder disease;
XX KW	vascular restenosis; angioplasty.
OS OS	Homo sapiens.
XX PN	WO2004016151-A2.
XX PD	26-FEB-2004.
XX PF	13-AUG-2003; 2003WO-US025473.
XX PR	15-AUG-2002; 2002US-0403805P.
XX PA	(OSTE-) OSTEOTROPHIN LLC.
XX PI	Stewart AF, Fiaschi-Taesch N;
XX PX	WPI; 2004-192051/18.
XX DR	New compound comprising a parathyroid hormone-related protein (PTHrP)
XX PT	mutant polypeptide, useful for treating or preventing smooth muscle cell
XX PT	proliferation-associated disorders, such as atherosclerosis or bronchial
XX PT	asthma.
XX PS	Claim 46; SEQ ID NO 9; 100pp; English.
XX CC	The invention describes a compound comprising a parathyroid hormone-
XX CC	related protein (PTHrP) mutant polypeptide (I). (I) has the following
XX CC	characteristics: the compound lacks a functional nuclear localisation
XX CC	signal, or has a functional nuclear localisation signal and one or more
XX CC	modified amino acids in the region of PTHrP(112-139); overexpressing the
XX CC	compound in a vascular smooth muscle cell decreases the level of
XX CC	phosphorylated immunoreactive retinoblastoma polypeptide compared to the
XX CC	level of phosphorylated immunoreactive retinoblastoma polypeptide
XX CC	observed in the absence of the compound; and overexpressing the compound
XX CC	in a vascular smooth muscle cell increases the level of immunoreactive
XX CC	p27kip1 polypeptide compared to the level of immunoreactive p27kip1
XX CC	polypeptide observed in the absence of the compound. (I) is useful for
XX CC	treating or preventing a smooth muscle cell proliferation-associated
XX CC	disorder, particularly in humans, such as uterine fibroid tumours,
XX CC	prostatic hypertrophy, bronchial asthma, portal hypertension in
XX CC	cirrhosis, pulmonary arterial hypertension, systemic arterial
XX CC	hypertension, atherosclerosis, bladder disease, and vascular
XX CC	restenosis after angioplasty. (I) is also useful in the manufacture of a medicament
XX CC	for treating smooth muscle cell proliferation-associated disorders. This
XX CC	is the amino acid sequence of a human parathyroid hormone related protein
XX CC	(PTHrP) peptide comprising substitutions that can be introduced to the
XX CC	PTHrP mutant of the invention.
XX SQ	Sequence 33 AA;
XX SQ	Query Match 100.0%; Score 42; DB 8; Length 33;
XX SQ	Best Local Similarity 100.0%; Pred. No. 0.47;
XX SQ	Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY	1 TSTTSLELD 9

Db	23 TSTTSLELD 31
RESULT 9	
ADK98658	
ID ID	ADK98658 standard; protein; 33 AA.
XX AC	ADK98658;
XX AC	ADK98658;
DT DT	20-MAY-2004 (first entry)
DE DE	Human parathyroid hormone related protein (PTHrP) C-terminus.
XX KW	cytostatic; antiasthmatic; hypotensive; hepatotropic;
XX KW	antiarteriosclerotic; uropathic; vasotropic;
XX KW	parathyroid hormone-related protein; PTHrP; vascular smooth muscle cell;
XX KW	retinoblastoma; p27kip1;
XX KW	smooth muscle cell proliferation-associated disorder;
XX KW	uterine fibroid tumour; prostatic hypertrophy; bronchial asthma;
XX KW	portal hypertension; cirrhosis; pulmonary arterial hypertension;
XX KW	systemic arterial hypertension; atherosclerosis; bladder disease;
XX KW	vascular restenosis; angioplasty.
XX OS	Homo sapiens.
XX OS	WO2004016151-A2.
XX PN	26-FEB-2004.
XX PD	13-AUG-2003; 2003WO-US025473.
XX PF	15-AUG-2002; 2002US-0403805P.
XX PR	(OSTE-) OSTEOTROPHIN LLC.
XX PA	Stewart AF, Fiaschi-Taesch N;
XX PI	WPI; 2004-192051/18.
XX PX	New compound comprising a parathyroid hormone-related protein (PTHrP)
XX PT	mutant polypeptide, useful for treating or preventing smooth muscle cell
XX PT	proliferation-associated disorders, such as atherosclerosis or bronchial
XX PT	asthma.
XX PS	Disclosure; SEQ ID NO 4; 100pp; English.
XX CC	The invention describes a compound comprising a parathyroid hormone-
XX CC	related protein (PTHrP) mutant polypeptide (I). (I) has the following
XX CC	characteristics: the compound lacks a functional nuclear localisation
XX CC	signal, or has a functional nuclear localisation signal and one or more
XX CC	modified amino acids in the region of PTHrP(112-139); overexpressing the
XX CC	compound in a vascular smooth muscle cell decreases the level of
XX CC	phosphorylated immunoreactive retinoblastoma polypeptide compared to the
XX CC	level of phosphorylated immunoreactive retinoblastoma polypeptide
XX CC	observed in the absence of the compound; and overexpressing the compound
XX CC	in a vascular smooth muscle cell increases the level of immunoreactive
XX CC	p27kip1 polypeptide compared to the level of immunoreactive p27kip1
XX CC	polypeptide observed in the absence of the compound. (I) is useful for
XX CC	treating or preventing a smooth muscle cell proliferation-associated
XX CC	disorder, particularly in humans, such as uterine fibroid tumours,
XX CC	prostatic hypertrophy, bronchial asthma, portal hypertension in
XX CC	cirrhosis, pulmonary arterial hypertension, systemic arterial
XX CC	hypertension, atherosclerosis, bladder disease, and vascular
XX CC	restenosis after angioplasty. (I) is also useful in the manufacture of a medicament
XX CC	for treating smooth muscle cell proliferation-associated disorders. This
XX CC	is the amino acid sequence of a human parathyroid hormone related protein
XX CC	(PTHrP) peptide comprising substitutions that can be introduced to the
XX CC	PTHrP mutant of the invention.
XX SQ	Sequence 33 AA;
XX SQ	Query Match 100.0%; Score 42; DB 8; Length 33;
XX SQ	Best Local Similarity 100.0%; Pred. No. 0.47;
XX SQ	Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

KW Parathyroid hormone-like protein; PTH-like protein.

OS Synthetic.

PN US5217896-A.

PD 08-JUN-1993.

XX 30-DEC-1988; 88US-00292263.

XX 30-DEC-1988; 88US-00292263.

PR (ONCO-) ONCOGENE SCI INC.

XX Kramer SP, Valenzuela DM, Reynolds FH, Sorvillo JM;

XX WPI; 1993-196249/24.

DR N-PSDB; AAQ43596.

XX Monoclonal antibody produced by hybridomas 212-10.7, 199-999 or 199-278 -
PT binds to parathyroid hormone-like protein, for detecting PTHLP and
PT diagnosing and treating humoral hypercalcaemia of malignancy.

XX Example; Fig 1C; 20pp; English.

XX The sequence is that of parathyroid hormone-like protein (PTHLP) amino
CC acids 86-141 which are encoded by a 183 bp PTHLP BamHI-SalI fragment,
CC segment "c", which was used in the construction of a synthetic PTHLP gene
XX

SQ Sequence 56 AA;

Query Match 100.0%; Score 42; DB 2; Length 56;
Best Local Similarity 100.0%; Pred. No. 0.83;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 TSTTSLELD 9

Db 44 TSTTSLELD 52

RESULT 13

AA06980

ID AAR06980 standard; protein; 79 AA.

XX

XX AAR06980;

DT 15-JAN-1991 (first entry)

XX PTHrP(B) polypeptide which inhibits parathyroid hormone related peptide

DE (PTHrP) activity.

XX Hypercalcaemia; osteoporosis; calcium metabolism.

XX Homo sapiens.

PN JP02207099-A.

XX 16-AUG-1990.

XX 07-FEB-1989; 89JP-00028023.

XX 07-FEB-1989; 89JP-00028023.

XX (TOFU) TONEN CORP.

XX WPI; 1990-294318/39.

DR N-PSDB; AAQ05346.

XX Prepn. of pthrp related peptide for e.g. osteoporosis treatment - by

PT transforming and cultivating E.coli with required vector.

XX Disclosure; Fig 3; 11pp; Japanese.

CC Product is from a portion of the PTHrP gene, carried on plasmid
CC pUCPTHrP(B) used to transform an E.coli expression system. The product
CC may be used for treatment of hypercalcaemia, osteoporosis and other
CC abnormalities of the calcium metabolism

XX Sequence 79 AA;

Query Match 100.0%; Score 42; DB 2; Length 79;

Best Local Similarity 100.0%; Pred. No. 1.2;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 TSTTSLELD 9

Db 67 TSTTSLELD 75

RESULT 14

AAE23744

ID AAE23744 standard; protein; 133 AA.

XX

XX AAE23744;

DT 10-SEP-2002 (first entry)

XX Human parathyroid related peptide, PTHrP (7-139) .

XX Human parathyroid hormone; hPTH; PTH-related peptide; PTHrP; eczema;

XX hyperproliferative skin disorder; psoriasis; ichthyosis; skin cancer;

XX acne; actinic keratosis; alopecia; gene therapy.

XX Homo sapiens.

XX WO200228420-A2.

XX 11-APR-2002.

XX 05-OCT-2001; 2001WO-US031082.

XX 06-OCT-2000; 2000US-0238134P.

XX (HOLI/) HOLICK M F.

XX Holick MF;

XX WPI; 2002-454495/48.

XX N-PSDB; AAD37997.

XX Regulating mammalian skin or hair cell proliferation and differentiation

XX by administering nucleic acids encoding peptides derived from N-terminal

XX region of human parathyroid hormone (hPTH) or hPTH-related protein.

XX Claim 35; Fig 44; 56pp; English.

XX The invention relates to a method for regulating proliferation or
XX enhancing differentiation of mammalian skin or hair cell. The method
XX involves administering nucleic acids encoding peptides derived from N-
XX terminal region of human parathyroid hormone (hPTH) or hPTH-related
XX peptide (PTHrP). The method is used for inhibiting hyperproliferative
XX skin disorders such as psoriasis, ichthyosis, eczema, acne, actinic
XX keratosis, skin cancer, for inhibiting hair growth or preventing hair
XX regrowth. It is useful for stimulating cell growth, rejuvenating aged
XX skin, preventing skin wrinkles, treating skin wrinkles, enhancing wound
XX healing, stimulating hair growth, maintaining hair growth, treating or
XX preventing female or male pattern baldness, for treating chemotherapy
XX induced alopecia and also for stimulating epidermal cell growth or hair
XX follicle cell growth. The method is also used in gene therapy. The
XX present sequence is hPTHrP peptide

XX Sequence 133 AA;

Query Match 100.0%; Score 42; DB 5; Length 133;

Best Local Similarity 100.0%; Pred. No. 2.1;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
 Db 123 TSTTSLELD 131

RESULT 15
 AAE23745
 ID AAE23745 standard; protein; 135 AA.

XX AC AAE23745;

XX 10-SEP-2002 (first entry)

XX Human parathyroid related peptide, PTHrP (7-141).

XX Human parathyroid hormone; hPTH; PTH-related peptide; PTHrP; eczema;
 KW hyperproliferative skin disorder; psoriasis; ichthyosis; skin cancer;
 KW acne; actinic keratosis; alopecia; gene therapy.

XX Homo sapiens.

XX WO200228420-A2.

XX 11-APR-2002.

XX 05-OCT-2001; 2001WO-US031082.

XX 06-OCT-2000; 2000US-0238134P.

XX (HOLI/) HOLICK M F.

XX Holick MF;

XX WPI; 2002-454495/48.

XX N-PSDB; AAD37997.

XX Regulating mammalian skin or hair cell proliferation and differentiation
 PT by administering nucleic acids encoding peptides derived from N-terminal
 FT region of human parathyroid hormone (hPTH) or hPTH-related protein.

XX Claim 35; Fig 45; 56pp; English.

XX The invention relates to a method for regulating proliferation or
 CC enhancing differentiation of mammalian skin or hair cell. The method
 CC involves administering nucleic acids encoding peptides derived from N-
 CC terminal region of human parathyroid hormone (hPTH) or hPTH-related
 CC peptide (PTHrP). The method is used for inhibiting hyperproliferative
 CC skin disorders such as psoriasis, ichthyosis, eczema, acne, actinic
 CC keratosis, skin cancer, for inhibiting hair growth or preventing hair
 CC regrowth. It is useful for stimulating cell growth, rejuvenating aged
 CC skin, preventing skin wrinkles, treating skin wrinkles, enhancing wound
 CC healing, stimulating hair growth, maintaining hair growth, treating or
 CC preventing female or male pattern baldness, for treating chemotherapy
 CC induced alopecia and also for stimulating epidermal cell growth or hair
 CC follicle cell growth. The method is also used in gene therapy. The
 CC present sequence is hPTHrP peptide

XX Sequence 135 AA;

Query Match 100.0%; Score 42; DB 5; Length 135;
 Best Local Similarity 100.0%; Pred. No. 2.2; 0; Indels 0; Gaps 0;
 Matches 9; Conservative 0; Mismatches 0

QY 1 TSTTSLELD 9
 Db 123 TSTTSLELD 131

Search completed: December 2, 2005, 23:27:52
 Job time : 25.8764 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 23:04:13 ; Search time 3.94382 Seconds
(without alignments)
219.572 Million cell updates/sec

Title: US-10-691-125-5

Perfect score: 42

Sequence: 1 TSTTSLELD 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR_80.*

1: Pirl.*

2: Pirl2.*

3: Pirl3.*

4: Pirl4.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	42	100.0	177	1 PTHU2L	parathyroid hormon
2	42	100.0	209	1 PTHU3L	parathyroid hormon
3	32	76.2	237	2 T40603	hypothetical prote
4	32	76.2	345	2 T32203	hypothetical prote
5	32	76.2	372	2 B89898	LytN protein [impo
6	32	76.2	651	2 A55100	SEC9 protein - yea
7	31	73.8	144	2 T05312	hypothetical prote
8	31	73.8	147	2 F83801	chorismate mutase
9	31	73.8	339	2 T20960	hypothetical prote
10	31	73.8	412	1 AJMSRS	argininosuccinate
11	31	73.8	474	2 S30168	mercury(II) reduct
12	31	73.8	583	2 C69158	sensory transducti
13	31	73.8	973	2 A85055	probable leucyl tr
14	31	73.8	1312	1 BMBYDL	RAD50 protein - ye
15	31	73.8	2809	2 T30213	G-cadherin - sea u
16	30	71.4	151	2 D84495	hypothetical prote
17	30	71.4	162	2 F82493	hypothetical prote
18	30	71.4	253	2 T33533	hypothetical prote
19	30	71.4	265	2 T02138	hypothetical prote
20	30	71.4	271	2 B96773	hypothetical prote
21	30	71.4	305	2 T01248	hypothetical prote
22	30	71.4	460	2 B85079	hypothetical prote
23	30	71.4	522	2 S75491	hypothetical prote
24	30	71.4	571	2 H84798	hypothetical prote
25	30	71.4	587	2 C71889	probable outer mem
26	30	71.4	644	2 T34879	probable integral
27	30	71.4	840	2 A87639	TonB-dependent rec
28	30	71.4	880	2 AF2128	hypothetical prote
29	30	71.4	1306	2 T13592	hypothetical prote

ALIGNMENTS

RESULT 1

PTHU2L

parathyroid hormone-related protein precursor, splice form 2 - human

N;Alternate names: parathyroid hormone-like protein

C;Species: Homo sapiens (man)

C;Date: 31-Mar-1993 #sequence revision 31-Mar-1993 #text change 09-Jul-2004

C;Accession: A33360; B33360; A28120; A94295; B94295; A36166; A91606; A28034; A36512; J50

R;Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.

J. Biol. Chem. 264, 7720-7725, 1989

A;Title: Characterization of the human parathyroid hormone-like peptide gene. Functional

A;Reference number: A33360; MUID:89214227; PMID:2708388

A;Accession: A33360

A;Molecule type: DNA

A;Residues: 1-175 <YAS>

A;Cross-references: UNIPROT:P12272; UNIPARC:UPI000002B1CC; GB:M24349; GB:J04710; NID:g19

A;Accession: B33360

A;Molecule type: DNA

A;Residues: 176-177 <YAS2>

A;Cross-references: UNIPARC:UPI00001734EA; GB:J04710

R;Mangin, M.; Webb, A.C.; Dreyer, B.E.; Posillico, J.T.; Ikeda, K.; Weir, E.C.; Stewart,

Proc. Natl. Acad. Sci. U.S.A. 85, 597-601, 1988

A;Title: Identification of a cDNA encoding a parathyroid hormone-like peptide from a hum

A;Reference number: A28120; MUID:88124888; PMID:2829195

A;Accession: A28120

A;Molecule type: mRNA

A;Residues: 1-177 <MAN>

A;Cross-references: UNIPARC:UPI0000047E25; EMBL:J03580

R;Suva, L.J.; Winslow, G.A.; Wettenthal, R.E.H.; Hammonds, R.G.; Moseley, J.M.; Diefenba

Science 237, 893-896, 1987

A;Title: A parathyroid hormone-related protein implicated in malignant hypercalcemia; cl

A;Reference number: A94295; MUID:87292119; PMID:3616618

A;Accession: A94295

A;Molecule type: mRNA

A;Residues: 1-177 <SU1>

A;Cross-references: UNIPARC:UPI0000047E25; GB:M17183; NID:g190725; PIDN:AAA60221.1; PID:

A;Accession: B94295

A;Molecule type: protein

A;Residues: 37-70,'X',72-84,'X',86;103-115 <SU2>

A;Cross-references: UNIPARC:UPI00001734EB; UNIPARC:UPI00001734EC

R;Thiede, M.A.; Strewler, G.J.; Nissenson, R.A.; Rosenblatt, M.; Rodan, G.A.

Proc. Natl. Acad. Sci. U.S.A. 85, 4605-4609, 1988

A;Title: Human renal carcinoma expresses two messages encoding a parathyroid hormone-lik

A;Reference number: A36166; MUID:88262996; PMID:3290897

A;Accession: A36166

A;Molecule type: mRNA

A;Residues: 1-175 <THI>

A;Cross-references: UNIPARC:UPI000002B1CC; GB:J03802; NID:g190717; PIDN:AAA60218.1; PID:

R;Suva, L.J.; Mather, K.A.; Gillespie, M.T.; Webb, G.C.; Ng, K.W.; Winslow, G.A.; Wood,

Gene 77, 95-105, 1989

A;Title: Structure of the 5' flanking region of the gene encoding human parathyroid-horm

A;Reference number: A91606; MUID:89306685; PMID:2744490

A;Accession: A91606
A;Molecule type: DNA
A;Residues: 1-34 <SVU3>
A;Cross-references: UNIPARC:UPI000016AF39; EMBL:X14304; NID:g35776; PIDN:CAA32480.1; PIDN:CAA37600.1
R;Moseley, J.M.; Kubota, M.; Diefenbach-Jagger, H.; Wattenhall, R.E.H.; Kemp, B.E.; Suva
Proc. Natl. Acad. Sci. U.S.A. 84, 5048-5052, 1987
A;Title: Parathyroid hormone-related protein purified from a human lung cancer cell line
A;Reference number: A28034; MUID:87260926; PMID:2885845
A;Accession: A28034
A;Molecule type: protein
A;Residues: 37-52 <MOS>
A;Cross-references: UNIPARC:UPI00001734ED
C;Comment: This hormone stimulates an increase of cyclic AMP levels in osteoblasts and
ay a role in fetal calcium metabolism.
C;Genetics:
A;Gene: GDB:PTHLH
A;Cross-references: GDB:120323; OMIM:168470
A;Map position: 12p12.1-12p11.2
A;Introns: 34/2
C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
C;Keywords: alternative splicing; hormone; humoral hypercalcemia
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-36/Domain: propeptide #status predicted <PRO>
F;35-69/Domain: parathyroid hormone homology <PTH>
F;37-177/Product: parathyroid hormone-related peptide, splice form 2 #status predicted
F;37-177/Product: parathyroid hormone-related peptide, splice form 1 #status predicted
F;37-175/Product: parathyroid hormone-related peptide, splice form 1 #status predicted
Query Match 100.0%; Score 42; DB 1; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.099;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TSTTSLELD 9
Db 165 TSTTSLELD 173
|||||
RESULT 2
PTHU3L
parathyroid hormone-related protein precursor, splice form 3 - human
N;Alternate names: parathyroid hormone-like protein
C;Species: Homo sapiens (man)
C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 09-Jul-2004
C;Accession: C33360; A32756
R;Yasuda, T.; Banville, D.; Hendy, G.N.; Goltzman, D.
J. Biol. Chem. 264, 7720-7725, 1989
A;Title: Characterization of the human parathyroid hormone-like peptide gene. Functional
A;Reference number: A33360; MUID:89214227; PMID:2708388
A;Accession: C33360
A;Molecule type: DNA
A;Residues: 1-209 <VAS>
A;Cross-references: UNIPROT:P12272; UNIPROT:Q15251; UNIPARC:UPI000002BLCD; GB:M24350; GB
R;Mangin, M.; Ikeda, K.; Dreyer, B.E.; Broadus, A.E.
Proc. Natl. Acad. Sci. U.S.A. 86, 2408-2412, 1989
A;Title: Isolation and characterization of the human parathyroid hormone-like peptide ge
A;Reference number: A32756; MUID:89184636; PMID:2928340
A;Accession: A32756
A;Molecule type: DNA
A;Residues: 176-209 <MAN>
A;Cross-references: UNIPARC:UPI0000035191; GB:M34071; NID:g190715; PIDN:AAA60217.1; PIDN:
C;Comment: This hormone causes humoral hypercalcemia of malignancy when secreted by cert
C;Genetics:
A;Gene: GDB:PTHLH
A;Cross-references: GDB:120323; OMIM:168470
A;Map position: 12p12.1-12p11.2
A;Introns: 34/2; 175/2
C;Superfamily: parathyroid hormone-related protein; parathyroid hormone homology
C;Keywords: alternative splicing; hormone; humoral hypercalcemia
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-36/Domain: propeptide #status predicted <PRO>
F;35-69/Domain: parathyroid hormone homology <PTH>
F;37-209/Product: parathyroid hormone-related protein, splice form 3 #status predicted
Query Match 100.0%; Score 42; DB 1; Length 209;

Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TSTTSLELD 9
Db 165 TSTTSLELD 173
|||||
RESULT 3
T40603
hypothetical protein SPBC651.04 - fission yeast (Schizosaccharomyces pombe)
C;Species: Schizosaccharomyces pombe
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T40603
R;Wood, V.; Rajandream, M.A.; Barrell, B.G.; Volckaert, G.
submitted to the EMBL Data Library, February 1999
A;Reference number: Z21940
A;Accession: T40603
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-237 <WOO>
A;Cross-references: UNIPROT:O94662; UNIPARC:UPI000006C72E; EMBL:AL035570; PIDN:CAB37600.1
A;Experimental source: strain 972h-; cosmid c651
C;Genetics:
A;Gene: SPDB:SPBC651.04
A;Map position: 2
C;Superfamily: Schizosaccharomyces pombe hypothetical protein SPBC651.04
Query Match 76.2%; Score 32; DB 2; Length 237;
Best Local Similarity 66.7%; Pred. No. 22;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
QY 1 TSTTSLELD 9
Db 85 TSTPMQLD 93
|||||
RESULT 4
T32203
hypothetical protein T02B11.5 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004
C;Accession: T32203
R;Goela, D.
submitted to the EMBL Data Library, September 1997
A;Description: The sequence of C. elegans cosmid T02B11.
A;Reference number: Z21135
A;Accession: T32203
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-345 <GOE>
A;Cross-references: UNIPROT:O16975; UNIPARC:UPI000017BB44; EMBL:AF022879; PIDN:AAB69906.1
A;Experimental source: strain Bristol N2; clone T02B11
C;Genetics:
A;Gene: CBSP:T02B11.5
A;Map position: 5
A;Introns: 68/3; 197/2; 237/3; 294/2; 343/3
Query Match 76.2%; Score 32; DB 2; Length 345;
Best Local Similarity 100.0%; Pred. No. 34;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TSTTSLE 7
Db 332 TSTTSLE 338
|||||
RESULT 5
B89898
LytN protein [imported] - Staphylococcus aureus (strain N315)
C;Species: Staphylococcus aureus
C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004
C;Accession: B89898

R.; Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; Oguma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, K.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K.
Lancet 357, 1225-1240, 2001

A;Title: Whole genome sequencing of methicillin-resistant *Staphylococcus aureus*.

A;Reference number: A89756; MUID:21311952; PMID:11418146

A;Accession: B89898

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-372 <KUR>

A;Cross-references: UNIPROT:Q99DM3; UNIPARC:UPI00000D76C5; GB:BA000018; PID:g13701047; E

A;Experimental source: strain N315

C;Genetics:

A;Gene: lytN

Query Match 76.2%; Score 32; DB 2; Length 372;

Best Local Similarity 77.8%; Pred. No. 38;

Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9

||| ||||| ||

Db 80 TSDTSLKLD 88

RESULT 6

A55100

SPC9 protein - yeast (*Saccharomyces cerevisiae*)

N;Alternate names: protein G3860; protein YGR009C

C;Species: *Saccharomyces cerevisiae*

C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004

C;Accession: A55100; S64298; S48526

R;Brennwald, P.; Kearns, B.; Champion, K.; Keraenen, S.; Bankaitis, V.; Novick, P.

Cell 79, 245-258, 1994

A;Title: Sec9 is a SNAP-25-like component of a yeast SNARE complex that may be the effec

A;Reference number: A55100; MUID:95042722; PMID:7954793

A;Accession: A55100

A;Molecule type: DNA

A;Residues: 1-651 <BRE>

A;Cross-references: UNIPROT:P40357; UNIPARC:UPI000013575B; EMBL:L34336; NID:g508619; PID

R;Hebling, U.; Hofmann, B.; Dellus, H.

submitted to the Protein Sequence Database, May 1996

A;Reference number: S64003

A;Accession: S64298

A;Molecule type: DNA

A;Residues: 1-651 <HEB>

A;Cross-references: UNIPARC:UPI000013575B; EMBL:Z72794; NID:g1322968; PID:e243918; PID:9

A;Experimental source: strain S288C

C;Genetics:

A;Gene: SGD:SEC9; HSS7

A;Cross-references: SGD:S0003241; MIPS:YGR009C

A;Map position: 7R

C;Function:

A;Description: required for post-Golgi transport

C;Keywords: transmembrane protein

Query Match 76.2%; Score 32; DB 2; Length 651;

Best Local Similarity 77.8%; Pred. No. 72;

Matches 7; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9

||| ||||| ||

Db 209 TSTNSLSLD 217

RESULT 7

T05312

hypothetical protein F26P21.160 - *Arabidopsis thaliana*

C;Species: *Arabidopsis thaliana* (mouse-ear cress)

C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 09-Jul-2004

C;Accession: T05312

R;Bevan, M.; Terry, N.; Ardiles, W.; Buysashaert, C.; Dasseville, R.; De Clerck, R.; De

ewes, H.W.; Mayer, K.F.X.; Schueller, C.

submitted to the Protein Sequence Database, October 1998

A;Reference number: Z15407

A;Accession: T05312

A;Molecule type: DNA

A;Residues: 1-144 <BEV>

A;Cross-references: UNIPROT:O82644; UNIPARC:UPI00000A6C63; EMBL:AL031804

A;Experimental source: cultivar Columbia; BAC clone F26P21

C;Genetics:

A;Map position: 4

A;Note: F26P21.160

Query Match

Best Local Similarity 73.8%; Score 31; DB 2; Length 144;

Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9

||| ||||| ||

Db 25 TSTTSLSID 33

RESULT 8

F83801

chorismate mutase pheB [imported] - *Bacillus halodurans* (strain C-125)

C;Species: *Bacillus halodurans*

C;Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 12-Jul-2004

C;Accession: F83801

R;Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Hirai,

Nucleic Acids Res. 28, 4317-4331, 2000

A;Title: Complete genome sequence of the alkaliphilic bacterium *Bacillus halodurans* and

A;Reference number: A83650; MUID:20512582; PMID:11058132

A;Accession: F83801

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-147 <STO>

A;Cross-references: UNIPROT:Q9KDJ9; UNIPARC:UPI00000C3B1B; GB:AP001511; GB:BA000004; NID

A;Experimental source: strain C-125

C;Genetics:

A;Gene: pheB

C;Superfamily: ACT domain ligand-binding protein PheB

Query Match

Best Local Similarity 73.8%; Score 31; DB 2; Length 147;

Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9

||| ||||| ||

Db 117 TATWSLEID 125

RESULT 9

T20960

hypothetical protein W05H5.7 - *Caenorhabditis elegans*

C;Species: *Caenorhabditis elegans*

C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004

C;Accession: T20960; T26202

R;Sims, M.

submitted to the EMBL Data Library, October 1996

A;Reference number: Z19350

A;Accession: T20960

A;Status: preliminary; translated from GB/EMBL/DBJ

A;Molecule type: DNA

A;Residues: 1-339 <WIL>

A;Cross-references: UNIPROT:P90837; UNIPARC:UPI000007ABBA; EMBL:Z81062; PIDN:CAB02950.1;

A;Experimental source: clone F15A4

R;Percy, C.

submitted to the EMBL Data Library, October 1996

A;Reference number: Z20170

A;Accession: T26202

A;Status: preliminary; translated from GB/EMBL/DBJ

A;Molecule type: DNA

A;Residues: 1-339 <W12>

A;Cross-references: UNIPARC:UPI000007ABBA; EMBL:Z81139; PIDN:CAB03483.1; GSPDB:GN00020;

A;Experimental source: clone W05H5

C;Genetics:

A;Gene: CESP:W05H5.7
A;Map position: 2
A;Introns: 60/2; 158/2; 210/3; 251/3; 271/2

Query Match 73.8%; Score 31; DB 2; Length 339;
Best Local Similarity 75.0%; Pred. No. 56;
Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLEL 8
|||||:|

Db 310 TSTTSVEI 317

RESULT 10

AJMSRS argininosuccinate synthase (EC 6.3.4.5) - mouse

N;Alternate names: citrulline-aspartate ligase

C;Species: Mus musculus (house mouse)

C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992

C;Accession: J0463

R;Surh, L.C.; Beaudet, A.L.; O'Brien, W.E.

Gene 99, 181-189, 1991

A;Title: Molecular characterization of the murine argininosuccinate synthetase locus.

A;Reference number: J0463; MUID:91216457; PMID:1708740

A;Accession: J0463

A;Molecule type: mRNA

A;Residues: 1-412 <SUR>

A;Cross-references: UNIPROT:P16460; UNIPARC:UPI0000001838; GB:M31690; NID:g192068; PIDN:

C;Comment: This enzyme catalyzes the formation of argininosuccinate from citrulline and

C;Genetics:

A;Gene: ASS

A;Introns: 35/3; 58/3; 121/3; 142/3; 495/3; 189/2; 199/3; 230/1; 258/2; 280/1; 324/1; 37

C;Superfamily: argininosuccinate synthase

C;Keywords: arginine biosynthesis; homotetramer; ligase; urea cycle

F;149,153/Binding site: Mg-ATP (Glu, Arg) #status predicted

Query Match 73.8%; Score 31; DB 1; Length 412;

Best Local Similarity 87.5%; Pred. No. 70;

Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 TSTTSLEL 8
|||||

Db 243 TRTTSLEL 250

RESULT 11

S30168

mercury(II) reductase (EC 1.16.1.1) merA - Streptomyces lividans

N;Alternate names: mercuric reductase merA

C;Species: Streptomyces lividans

C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004

C;Accession: S30168; S23608; S70626

R;Sedlmeier, R.; Altenbuchner, J.

Mol. Gen. Genet. 236, 76-85, 1992

A;Title: Cloning and DNA sequence analysis of the mercury resistance genes of Streptomyces

A;Reference number: S30168; MUID:93156687; PMID:1494353

A;Accession: S30168

A;Molecule type: DNA

A;Residues: 1-474 <ALT>

A;Cross-references: UNIPROT:P30341; UNIPARC:UPI000012BF1F; EMBL:X65467; NID:g47180; PIDN:

A;Experimental source: strain 1326

R;Altenbuchner, J.

submitted to the EMBL Data Library, April 1992

A;Reference number: S23608

A;Accession: S23608

A;Molecule type: DNA

A;Residues: 1-273, 'A', 275-474 <AL2>

A;Cross-references: UNIPARC:UPI0000175063; EMBL:X65467

A;Experimental source: strain 1326

R;Bruenker, P.; Rother, D.; Sedlmeier, R.; Klein, J.; Mattes, R.; Altenbuchner, J.

Mol. Gen. Genet. 251, 307-315, 1996

A;Title: Regulation of the operon responsible for broad-spectrum mercury resistance in S

A;Accession: S70626
A;Status: not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-22 <BRU>

A;Cross-references: UNIPARC:UPI0000175064

A;Experimental source: strain 1326

C;Genetics:

A;Gene: merA

A;Start codon: GTG

C;Function:

A;Description: reduces mercury ions to less toxic metallic mercury

A;Pathway: mercury resistance

A;Note: NADPH-dependent enzyme; mercury resistance operon

C;Superfamily: dihydrolipoamide dehydrogenase; dihydrolipoamide dehydrogenase homology

C;Keywords: NADP; oxidoreductase; redox-active disulfide

F;11-455/Domain: dihydrolipoamide dehydrogenase homology <DLD>

F;45-50/Disulfide bonds: redox-active #status predicted

Query Match 73.8%; Score 31; DB 2; Length 474;

Best Local Similarity 75.0%; Pred. No. 83;

Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLEL 8
|||||:|

Db 167 TSTTAMEL 174

RESULT 12

C69158

sensory transduction regulatory protein - Methanobacterium thermoautotrophicum (strain D

C;Species: Methanobacterium thermoautotrophicum

C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004

C;Accession: C69158

R;Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T.; I

; Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiواني, N.;

ki, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N.

J. Bacteriol. 179, 7135-7155, 1997

A;Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: functi

A;Reference number: A69000; MUID:98037514; PMID:9371463

A;Accession: C69158

A;Status: preliminary; nucleic acid sequence not shown; translation not shown

A;Molecule type: DNA

A;Residues: 1-583 <MTH>

A;Cross-references: UNIPROT:O26546; UNIPARC:UPI000006668C; GB:AE000829; GB:AE0006666; NID

A;Experimental source: strain Delta H

C;Genetics:

A;Gene: MTH446

Query Match 73.8%; Score 31; DB 2; Length 583;

Best Local Similarity 66.7%; Pred. No. 1.1e+02;

Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
|||||

Db 220 TSVTAVELD 228

RESULT 13

A85055

probable leucyl tRNA synthetase [imported] - Arabidopsis thaliana

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004

C;Accession: A85055

R;anonymous, The European Union Arabidopsis Genome Sequencing Consortium, The Cold Spring

Nature 402, 769-777, 1999

A;Title: Sequence and analysis of chromosome 4 of the plant Arabidopsis thaliana.

A;Reference number: A85001; MUID:20083488; PMID:10617198

A;Accession: A85055

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-973 <STO>

A;Cross-references: UNIPROT:Q9XEA0; UNIPARC:UPI000000AC02A; GB:NC_001268; NID:g7267192; P3

C;Genetics:

A:Gene: AT4g04350
A:Map position: 4
C:Superfamily: leucine-trna ligase

Query Match 73.8%; Score 31; DB 2; Length 973;
Best Local Similarity 75.0%; Pred. No. 1.9e+02;
Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLEL 8
|:|||||
Db 74 TATTSIEL 81

RESULT 14
BWBVDL
RAD50 protein - yeast (Saccharomycetes cerevisiae)
N:Alternate names: protein N0872; protein YNL250w
C:Species: Saccharomycetes cerevisiae
C:Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 09-Jul-2004
C:Accession: S05808; S63223
R:Alani, E.; Subbiah, S.; Kleckner, N.
Genetics 122, 47-57, 1989
A:Title: The yeast RAD50 gene encodes a predicted 153-kD protein containing a purine nuc
A:Reference number: S05808; MUID:89276917; PMID:2659437
A:Accession: S05808
A:Molecule type: DNA
A:Residues: 1-1312 <ALA>
A:Cross-references: UNIPROT:P12753; UNIPARC:UPI000004C4DD; EMBL:X14814; NID:g4272; PIDN:
R:Sen-Gupta, M.; Gueldeher, U.; Beinbauer, J.; Fiedler, T.; Hegemann, J.H.
submitted to the Protein Sequence Database, April 1996
A:Reference number: S63220
A:Accession: S63223
A:Molecule type: DNA
A:Residues: 1-1312 <SEN>
A:Cross-references: UNIPARC:UPI000004C4DD; EMBL:Z71526; NID:gl302292; PIDN:CAA96157.1; F
A:Experimental source: strain S288C
C:Genetics:
A:Gene: SGD:RAD50; MIPS:YNL250w
A:Cross-references: SGD:S0005194; MIPS:YNL250w
A:Map position: 14L
C:Superfamily: RAD50 protein
C:Keywords: ATP; coiled coil; DNA repair; meiosis; nucleus
F:177-421/Region: heptad repeats
F:743-995/Region: heptad repeats
F:740/Binding site: ATP (Lys) #status predicted

Query Match 73.8%; Score 31; DB 1; Length 1312;
Best Local Similarity 87.5%; Pred. No. 2.7e+02;
Matches 7; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 STTSLELD 9
|||
Db 129 STRSLELD 136

RESULT 15
T30213
G-cadherin - sea urchin (Lytechinus variegatus)
C:Species: Lytechinus variegatus (variegated urchin)
C:Date: 22-Oct-1999 #sequence_revision 22-Oct-1999 #text_change 09-Jul-2004
C:Accession: T30213
R:Miller, J.R.; McClay, D.R.
Dev. Biol. 192, 323-339, 1997
A:Title: Characterization of the role of cadherin in regulating cell adhesion during sea
A:Reference number: Z20780; MUID:98104238; PMID:9441671
A:Accession: T30213
A:Status: preliminary; translated from GB/EMBL/DBSJ
A:Molecule type: mRNA
A:Residues: 1-2809 <MIT>
A:Cross-references: UNIPROT:O61230; UNIPARC:UPI0000081A90; EMBL:U34823; NID:g2982186; PI

Query Match 73.8%; Score 31; DB 2; Length 2809;
Best Local Similarity 75.0%; Pred. No. 6.6e+02;

Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 2 STTSLELD 9
|||
Db 1780 STTGLELD 1787

Search completed: December 2, 2005, 23:29:25
Job time : 7.94382 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:38:37 ; Search time 25.0281 Seconds
(without alignments)
253.705 Million cell updates/sec

Title: US-10-691-125-5
Perfect score: 42
Sequence: 1 TSTTSLELD 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_05.80.*
1: uniprot_sprot.*
2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	42	100.0	175	2	Q53XY9 HUMAN
2	42	100.0	177	1	P12772 HOMO sapien
3	42	100.0	177	2	Q6FH74 HUMAN
4	37	88.1	476	2	Q4NF11_9MCC
5	36	85.7	457	2	Q4NF12 BACTN
6	36	85.7	741	2	Q8W170 ORYZA
7	36	85.7	772	2	Q751Q9 ORYZA
8	36	85.7	3141	2	Q5AR80 EMENI
9	35	83.3	538	2	Q76P04 DICDI
10	35	83.3	1068	2	Q54ZS5 DICDI
11	34	81.0	399	2	Q9FR65 9BRAS
12	34	81.0	424	2	Q4U978 THEAN
13	34	81.0	475	2	Q7T3Q3 BRARE
14	34	81.0	773	2	Q5XHK0 XENLA
15	34	81.0	1010	2	Q88XH5 LACPL
16	34	81.0	1682	2	Q4ZUT9 PSESY
17	33	78.6	100	2	Q9DA51 MOUSE
18	33	78.6	120	2	Q84VR0 MAIZE
19	33	78.6	143	2	Q8AK87 MAIZE
20	33	78.6	239	2	Q8Z4I7 ORYZA
21	33	78.6	303	2	Q8U248 9ASCO
22	33	78.6	306	2	Q6ENK1 ORYZA
23	33	78.6	510	2	Q4LKf3 9BURK
24	33	78.6	511	2	Q63JM5 BURPS
25	33	78.6	511	2	Q62AK1 BURMA
26	33	78.6	542	2	Q8MZE6 DROME
27	33	78.6	563	2	Q5E3J3 VIBF1
28	33	78.6	749	2	Q9W4E0 DROME
29	33	78.6	966	2	Q84PR7 ORYZA
30	33	78.6	1290	2	Q55173 CRYNE
31	33	78.6	1290	2	Q5K7Q8_CRYNE

32 33 78.6 1885 2 Q8RJY4 STIAU Q8RJY4 stigmatella
33 33 78.6 2506 2 Q58MP1_9CAUD Q58MP1 cyanophage
34 33 78.6 4237 2 Q4SBT0 TETNG Q4SBT0 tetracodon n
35 33 78.6 6846 2 Q4ROA7 TETNG Q4ROA7 tetracodon n
36 32 76.2 17 2 Q9AU0_9BRAS Q9AU0 cochlearia
37 32 76.2 93 2 Q8GZ24_ARYTH Q8GZ24 arabidopsis
38 32 76.2 168 2 Q850S8_ORYSA Q850S8 oryza sativ
39 32 76.2 170 2 Q7YR12 CEREL Q7YR12 cervus elap
40 32 76.2 237 1 YBW4 SCHPO Y94662 schizosacch
41 32 76.2 248 2 O81405 SINAR O81405 sinapis arv
42 32 76.2 330 2 O16975_CABEL O16975 caenorhabdi
43 32 76.2 372 2 O6G9W6_STAAS O6G9W6 staphylococ
44 32 76.2 372 2 Q6GH18_STAAR Q6GH18 staphylococ
45 32 76.2 372 2 Q7A123_STAAR Q7A123 staphylococ

ALIGNMENTS

RESULT 1
Q53XY9 HUMAN
ID Q53XY9 HUMAN PRELIMINARY; PRT; 175 AA.
AC Q53XY9
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone-like hormone.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Kainine N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA Koundinya M., Raphael J., Moreira D., Kelley T., LaBaer J., Lin Y.,
RA Phelan M., Farmer A.;
RT "Cloning of human full-length CDSs in BD Creator(TM) System Donor
RT vector."
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
SR EMBL; BT007178; AAP35842.1; -; wRNA.
SQ SEQUENCE 175 AA; 19900 MW; 4FEE954C51DB3E7D CRC64;

Query Match 100.0%; Score 42; DB 2; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.72;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
| | | | | | | | | |
Db 165 TSTTSLELD 173

RESULT 2
PTHR HUMAN
ID PTHR HUMAN STANDARD; PRT; 177 AA.
AC P12272; O15251;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-OCT-1989 (Rel. 12, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone-related protein precursor (PTH-rp) (PTH-rp)
DE [Contains: PTHrP[1-36]; PTHrP[38-94]; Osteostatin (PTHrP[107-139])].
GN Name=PTHrP; Synonym=PTHRP;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE, AND PARTIAL PROTEIN SEQUENCE.
RX MEDLINE=87292119; PubMed=3616618;
RA Suva L.J., Winslow G.A., Wettenhall R.E.H., Hammonds R.G.,
RA Moseley J.M., Diefenbach-Jagger H., Rodda C.P., Kemp B.E.,
RA Rodriguez H., Chen B.Y., Hudson P.J., Martin T.J., Wood W.I.;

- RT "A parathyroid hormone-related protein implicated in malignant hypercalcemia: cloning and expression.";
- RL Science 237:893-896(1997).
- RN [2]
- RP NUCLEOTIDE SEQUENCE.
- RX MEDLINE=88124889; PubMed=2829195;
- RA Mangin M., Webb A.C., Dreyer B.E., Posillico J.T., Ikeda K., Weir E.C., Stewart A.F., Bander N.H., Milstone L., Barton D.E., Francke U., Broadus A.E.;
- RA "Identification of a cDNA encoding a parathyroid hormone-like peptide from a human tumor associated with humoral hypercalcemia of malignancy.";
- RT Proc. Natl. Acad. Sci. U.S.A. 85:597-601(1988).
- RL [3]
- RN NUCLEOTIDE SEQUENCE.
- RX MEDLINE=89214227; PubMed=2708388;
- RA Yasuda T., Banville D., Hendy G.N., Goltzman D.;
- RA "Characterization of the human parathyroid hormone-like peptide gene. Functional and evolutionary aspects.";
- RT J. Biol. Chem. 264:7720-7725(1989).
- RL [4]
- RN NUCLEOTIDE SEQUENCE (ISOFORM 2).
- RX MEDLINE=88262996; PubMed=3290897;
- RA Thiede M.A., Strewler G.J., Nissenson R.A., Rodan G.A.;
- RA "Human renal carcinoma expresses two messages encoding a parathyroid hormone-like peptide: evidence for the alternative splicing of a single-copy gene.";
- RT Proc. Natl. Acad. Sci. U.S.A. 85:4605-4609(1988).
- RL [5]
- RN NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM 2).
- RP TISSUE=Brain;
- RX MEDLINE=23688257; PubMed=12477932; DOI=10.1073/pnas.242603899;
- RA Strauberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S., Lequellano N.A., Peters G.J., Abramson R.D., Mullaly S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fehey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickinson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalls D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
- RA "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
- RT Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
- RL [6]
- RN NUCLEOTIDE SEQUENCE OF 1-33.
- RP TISSUE=Liver;
- RX MEDLINE=89306685; PubMed=2744490; DOI=10.1016/0378-1119(89)90363-6;
- RA Suva L.J., Mather K.A., Gillespie M.T., Webb G.C., Ng K.W., Winslow G.A., Wood W.I., Martin T.J., Hudson P.J.;
- RA "Structure of the 5' flanking region of the gene encoding human parathyroid-hormone-related protein (PTHrP).";
- RL Gene 77:95-105(1989).
- RN [7]
- RP PROTEIN SEQUENCE OF 37-52.
- RX MEDLINE=87260926; PubMed=2885845;
- RA Moseley J.M., Kubota M., Diefenbach-Jagger H., Wettenhall R.E.H., Kemp B.E., Suva L.J., Rodda C.P., Ebeling P.R., Hudson P.J., Zajac J.D., Martin T.J.;
- RA "Parathyroid hormone-related protein purified from a human lung cancer cell line.";
- RT Proc. Natl. Acad. Sci. U.S.A. 84:5048-5052(1987).
- RL [8]
- RN ALTERNATIVE SPLICING (ISOFORM 3).
- RP MEDLINE=89184636; PubMed=2928340;
- RX Mangin M., Ikeda K., Dreyer B.E., Broadus A.E.;
- RA "Isolation and characterization of the human parathyroid hormone-like peptide gene.";
- RL Proc. Natl. Acad. Sci. U.S.A. 86:2408-2412(1989).
- RN [9]
- RP CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
- RX MEDLINE=92007462; PubMed=1915066;
- RA Fenton A.J., Kemp B.E., Kent G.N., Moseley J.M., Zheng M.H., Rowe D.J., Britto J.M., Martin T.J., Nicholson G.C.;
- RA "A carboxyl-terminal peptide from the parathyroid hormone-related protein inhibits bone resorption by osteoclasts.";
- RT Endocrinology 129:1762-1768(1991).
- RL [10]
- RN CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
- RX MEDLINE=92063907; PubMed=1954916;
- RA Fenton A.J., Kemp B.E., Hammonds R.G., Mitchellhill K., Moseley J.M., Martin T.J., Nicholson G.C.;
- RA "A potent inhibitor of osteoclastic bone resorption within a highly conserved pentapeptide region of parathyroid hormone-related protein: PTHrP107-111.";
- RT Endocrinology 129:3424-3426(1991).
- RL [11]
- RN CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
- RX MEDLINE=97289439; PubMed=9144344;
- RA Martinez M.E., Garcia-Ocana A., Sanchez M., Medina S., del Campo T., Valin A., Sanchez-Cabezudo M.J., Ebrill P.;
- RA "C-terminal parathyroid hormone-related protein inhibits proliferation and differentiation of human osteoblast-like cells.";
- RL J. Bone Miner. Res. 12:778-785(1997).
- RL [12]
- RN CHARACTERIZATION OF OSTEOSTATIN ACTIVITY.
- RX MEDLINE=97200810; PubMed=9048639; DOI=10.1210/en.138.3.1299;
- RA Cornish J., Callon K.E., Nicholson G.C., Reid I.R.;
- RA "Parathyroid hormone-related protein-(107-139) inhibits bone resorption in vivo.";
- RT Endocrinology 138:1299-1304(1997).
- RL [13]
- RN NUCLEOCYTOPLASMIC SHUTTTLING.
- RX MEDLINE=22736810; PubMed=12852260; DOI=10.1016/S0083-6729(03)01010-0;
- RA Jans D.A., Thomas R.J., Gillespie M.T., Jans D.A.;
- RA "Parathyroid hormone-related protein (PTHrP): a nucleocytoplasmic shuttling protein with distinct paracrine and intracrine roles.";
- RL Vitam. Horm. 66:345-384(2003).
- RL [14]
- RN NUCLEAR LOCALIZATION SIGNAL.
- RP MEDLINE=21294781; PubMed=11401507; DOI=10.1006/bbrc.2001.4607;
- RA Lam M.H., Hu W., Xiao C.Y., Gillespie M.T., Jans D.A.;
- RA "Molecular dissection of the importin beta1-recognized nuclear targeting signal of parathyroid hormone-related protein.";
- RL Biochem. Biophys. Res. Commun. 282:629-634(2001).
- RL [15]
- RN REVIEW.
- RX MEDLINE=22425984; PubMed=12538599; DOI=10.1210/en.2002-220818;
- RA Fiaschi-Taesch N.M., Stewart A.P.;
- RA "Minireview: parathyroid hormone-related protein as an intracrine factor -- trafficking mechanisms and functional consequences.";
- RL Endocrinology 144:407-411(2003).
- RN [16]
- RP STRUCTURE BY NMR OF 37-70.
- RX MEDLINE=99158054; PubMed=10050767; DOI=10.1016/S0014-5793(98)01658-5;
- RA Weidner M., Marx U.C., Seidel G., Schafer W., Hoffmann E., Esswein A., Roach P.;
- RA "The structure of human parathyroid hormone-related protein(1-34) in near-physiological solution.";
- RT FEBS Lett. 444:239-244(1999).
- RN [17]
- RP X-RAY CRYSTALLOGRAPHY (2.9 ANGSTROMS) OF 103-130.
- RX MEDLINE=22394035; PubMed=12504010; DOI=10.1016/S1097-2765(02)00727-X;
- RA Cingolani G., Bednko J., Gillespie M.T., Gerace L.;
- RA "Molecular basis for the recognition of a nonclassical nuclear localization signal by importin beta.";
- RL Mol. Cell 10:1345-1353(2002).
- CC -I- FUNCTION: Neuroendocrine peptide which is a critical regulator of

cellular and organ growth, development, migration, differentiation and survival and of epithelial calcium ion transport. Regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth.

-!- FUNCTION: Osteostatin is a potent inhibitor of osteoclastic bone resorption.

-!- SUBCELLULAR LOCATION: Cytoplasmic, nuclear and secreted.

-!- ALTERNATIVE PRODUCTS:

Event-Alternative splicing; Named isoforms=3;

Comment-Additional isoforms seem to exist;

Names=1;

Isoid=P12727-1; Sequence=Displayed;

Names=2;

Isoid=P12727-2; Sequence=VSP_004534;

Names=3;

Isoid=P12727-3; Sequence=VSP_004535;

-!- TISSUE SPECIFICITY: Ubiquitous. Also expressed in the mammary gland.

-!- PTM: There are 3 principal secretory forms, called PTHrP[1-36], PTHrP[38-94], and osteostatin (PTHrP[107-139]) arising from endoproteolytic cleavage of the initial translation product. Each of these secretory forms is believed to have one or more of its own receptors that mediates the normal paracrine, autocrine and endocrine actions.

-!- DISEASE: Produced by many tumors from patients with HHM (humoral hypercalcemia of malignancy).

-!- SIMILARITY: Belongs to the parathyroid hormone family.

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DR EMBL; M17183; AAA60221.1; -; Genomic_DNA.

Query Match 100.0%; Score 42; DB 1; Length 177;
 Best Local Similarity 100.0%; Pred. No. 0.73;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
 |||||
 Db 165 TSTTSLELD 173

RESULT 3

Q6FH74 HUMAN
 ID Q6FH74 HUMAN PRELIMINARY; PRT; 177 AA.
 AC Q6FH74;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
 DE PTHLH protein (Fragment).
 GN Name=PTHLH;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
 OC Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Halleck A., Ebert L., Mfoundinya M., Schick M., Eisenstein S.,
 RA Neubert P., Ketrang K., Schatten R., Shen B., Henze S., Mar W.,
 RA Korn B., Zuo D., Hu Y., Labaer J.;
 RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL; CR541882; CAG46680.1; -; mRNA.
 FT NON_TER 177 177
 SQ SEQUENCE 177 AA; 20194 MW; 449FDFEE954C51DB CRC64;

Query Match 100.0%; Score 42; DB 2; Length 177;
 Best Local Similarity 100.0%; Pred. No. 0.73;
 Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
 |||||
 Db 165 TSTTSLELD 173

RESULT 4

Q4NF11_9MICC
 ID Q4NF11_9MICC PRELIMINARY; PRT; 476 AA.
 AC Q4NF11;
 DT 13-SEP-2005 (TrEMBLrel. 31, Created)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
 DE FAD-dependent pyridine nucleotide-disulphide oxidoreductase:Pyridine nucleotide-disulphide oxidoreductase dimerisation region.
 DE ORFNames=ArthDRAFT_2098;
 GN Arthrobacter sp. PB24.
 OS Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
 OC Micrococcales; Micrococcaceae; Arthrobacter.
 OX NCBI_TaxID=290399;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=PB24;
 RG US DOE Joint Genome Institute (JGI-PGF);
 RA Copeland A., Lucas S., Lapidus A., Barry K., Detter C., Glavina T.,
 RA Hammon N., Israni S., Pitluck S., Richardson P.;
 RT "Sequencing of the draft genome assembly of Arthrobacter sp. PB24."
 RL Submitted (JUN-2005) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=PB24;
 RG US DOE Joint Genome Institute (PGF-ORNL);
 RA Larimer F., Land M.;
 RT "Annotation of the draft genome assembly of Arthrobacter sp. PB24."
 RL Submitted (JUN-2005) to the EMBL/GenBank/DBJ databases.
 CC -!- CAUTION: The sequence shown here is derived from an EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is preliminary data.
 CC EMBL; AAHG01000007; EAL95964.1; -; Genomic DNA.
 DR EMBL; AAHG01000007; EAL95964.1; -; Genomic DNA.
 SQ SEQUENCE 476 AA; 49359 MW; 8C2531216B3867AE CRC64;

Query Match 88.1%; Score 37; DB 2; Length 476;
 Best Local Similarity 77.8%; Pred. No. 30;
 Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
 |||||
 Db 168 TSTTAMELD 176

RESULT 5

Q8A712_BACTN
 ID Q8A712_BACTN PRELIMINARY; PRT; 457 AA.
 AC Q8A712;
 DT 01-JUN-2003 (TrEMBLrel. 24, Created)
 DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE Putative pyridine nucleotide-disulphide oxidoreductase.
 GN OrderedLocusNames=BT1542;
 OS Bacteroides thetaiotaomicron.
 OC Bacteria; Bacteroidetes; Bacteroidia; Bacteroidales;
 OC Bacteroidaceae; Bacteroides.
 OX NCBI_TaxID=818;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA STRAIN=VPI-5482 / ATCC 29148;
 RC MEDLINE=22550858; PubMed=12663928; DOI=10.1126/science.1080029;
 RX Xu J., Bjursell M.K., Himrod J., Deng S., Carmichael L.K.,
 RA Chiang H.C., Hooper L.V., Gordon J.I.;
 RT "A genomic view of the human-Bacteroides thetaiotaomicron symbiosis."
 RL Science 299:2074-2076(2003).
 DR EMBL; AB016932; AA076649.1; -; Genomic_DNA.
 DR HSSP; P31023; 1DXL.
 DR GO; GO:0005737; Cytoplasm; IEA.

DR GO: GO:0015036; F:disulfide oxidoreductase activity; IEA.
 DR GO: GO:0050660; F:FAD binding; IEA.
 DR GO: GO:0006118; P:electron transport; IEA.
 DR InterPro: IPR001327; FAD_pyr_redox.
 DR InterPro: IPR000815; Hg_reductase.
 DR InterPro: IPR000205; NAD_BS.
 DR InterPro: IPR00103; Pyridine redox_2.
 DR InterPro: IPR001100; Pyr_redox.
 DR InterPro: IPR004099; Pyr_redox_dim.
 DR Pfam: PF00070; Pyr_redox; 1.
 DR Pfam: PF02852; Pyr_redox_dim; 1.
 DR PRINTS; PR00368; FADPNR.
 DR PRINTS; PR00945; HGRDPTASE.
 DR PRINTS; PR00411; PNDROTPASEI.
 DR PRINTS; PR00469; PNDROTPASEII.
 DR ProDom; PD000139; FAD_pyr_redox; 1.
 KW Complete proteome.
 SQ SEQUENCE 457 AA; 50423 MW; 13290F2E1D1A62B7 CRC64;

Query Match 85.7%; Score 36; DB 2; Length 457;
 Best Local Similarity 88.9%; Pred. No. 48;
 Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9

Db 159 TSTTLELD 167

RESULT 6

Q8W170 ORYSA
 ID Q8W170 ORYSA PRELIMINARY; PRT; 741 AA.

AC Q8W170; 2002 (TrEMBLrel. 20, Created)
 DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE Fructose-6-phosphate-2-kinase/fructose-2, 6-bisphosphatase.
 OS Oryza sativa (Rice).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
 OC Ehrhartoideae; Oryzoideae; Oryza.
 OX NCBI_TaxID=4530;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Hu J.-G., Huang B.-Q., Yip W., Zee S.;
 RL Submitted (DEC-2001) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF456329; AAL66023.1; -; mRNA.
 DR HSSP; P07953; 1FTF.
 DR Gramene; Q8W170; -.
 DR GO: GO:0005524; F:ATP binding; IEA.
 DR GO: GO:0003824; F:catalytic activity; IEA.
 DR GO: GO:0016301; F:kinase activity; IEA.
 DR GO: GO:0006003; P:fructose 2,6-bisphosphate metabolism; IEA.
 DR GO: GO:0008152; P:metabolism; IEA.
 DR InterPro: IPR003094; 6Pfruct_kin.
 DR Pfam; PF01591; 6PF2K; 1.
 DR Pfam; PF00300; PGAM; 1.
 DR PRINTS; PR00991; 6PFRUCTKNASE.
 DR PROSITE; PS00175; PG_MUTASE; UNKNOWN_1.
 KW Kinase.

SQ SEQUENCE 741 AA; 82448 MW; 1C6504B779F8761F CRC64;

Query Match 85.7%; Score 36; DB 2; Length 741;
 Best Local Similarity 88.9%; Pred. No. 84;
 Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9

Db 174 TSTESLELD 182

RESULT 7

Q751Q9 ORYSA

ID Q751Q9 ORYSA PRELIMINARY; PRT; 772 AA.
 AC Q751Q9;
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
 DE 'putative 6-phosphofructo-2-kinase (EC 2.7.1.105) / fructose-2, 6-bisphosphate 2-phosphatase (EC 3.1.3.46); ('putative 6-phosphofructo-2-kinase/ fructose-2, 6-bisphosphate 2-phosphatase').
 GN Name=OSJNB0099P06.14; Synonyms=OSJNB0027N19.4;
 OS Oryza sativa (japonica cultivar-group).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
 OC Ehrhartoideae; Oryzoideae; Oryza.
 OX NCBI_TaxID=39947;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Chow T.-Y., Hsing Y.-I.C., Chen C.-S., Chen H.-H., Liu S.-M., Chao Y.-T., Lee P.-F., Chang S.-J., Chen H.-C., Chen S.-K., Chen T.-R., Chen Y.-L., Cheng C.-H., Cheng C.-I., Han S.-Y., Hsiao S.-H., Hsiung J.-N., Hsu C.-H., Hsu C.-H., Kau P.-I., Lee M.-C., Lee H.-L., Li Y.-F., Lin S.-J., Lin Y.-C., Wu S.-W., Yu C.-Y., Yu S.-W., Wu H.-P., Shaw J.-F.;
 RL Submitted (MAY-2004) to the EMBL/GenBank/DBJ databases.
 RN [2]

RP NUCLEOTIDE SEQUENCE.

RA Chow T.-Y., Hsing Y.-I.C., Chen C.-S., Chen H.-H., Liu S.-M., Chao Y.-T., Chang S.-J., Chen H.-C., Chen S.-K., Chen T.-R., Chen Y.-L., Cheng C.-H., Cheng C.-I., Han S.-Y., Hsiao S.-H., Hsiung J.-N., Hsu C.-H., Hsu C.-H., Kau P.-I., Lee M.-C., Lee H.-L., Li Y.-F., Lin S.-J., Lin Y.-C., Wu S.-W., Yu C.-Y., Yu S.-W., Wu H.-P., Shaw J.-F.;
 RL Submitted (JUL-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AC124144; AAT07663.1; -; Genomic DNA.
 DR EMBL; AC134341; AAT69621.1; -; Genomic DNA.
 DR HSSP; P16118; 1K6M.
 DR Gramene; Q751Q9; -.
 DR GO: GO:0003873; F:6-phosphofructo-2-kinase activity; IEA.
 DR GO: GO:0005524; F:ATP binding; IEA.
 DR GO: GO:0003824; F:catalytic activity; IEA.
 DR GO: GO:0004331; F:fructose-2,6-bisphosphate 2-phosphatase act. .; IEA.
 DR GO: GO:0016301; F:kinase activity; IEA.
 DR GO: GO:0006003; P:fructose 2,6-bisphosphate metabolism; IEA.
 DR GO: GO:0008152; P:metabolism; IEA.
 DR InterPro: IPR003094; 6Pfruct_kin.
 DR InterPro: IPR001345; PG/BPGM_mutase.
 DR Pfam; PF01591; 6PF2K; 1.
 DR Pfam; PF00300; PGAM; 1.
 DR PRINTS; PR00991; 6PFRUCTKNASE.
 DR PROSITE; PS00175; PG_MUTASE; UNKNOWN_1.
 KW Kinase.

SQ SEQUENCE 772 AA; 84819 MW; 725B6370E649C430 CRC64;

Query Match 85.7%; Score 36; DB 2; Length 772;
 Best Local Similarity 88.9%; Pred. No. 88;
 Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9

Db 205 TSTESLELD 213

RESULT 8

Q5AR80 EMENI
 ID Q5AR80 EMENI PRELIMINARY; PRT; 3141 AA.

AC Q5AR80;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
 DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
 DE Hypothetical protein.
 GN ORFNames=AN200.2;
 OS Aspergillus nidulans FGSC A4.
 OC Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
 OC Eurotiales; Trichocomaceae; Emericella.

OX NCBI_TaxID=227321;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=FGSC A4;
RA Birren B., Nusbaum C., Abouelleil A., Allen N., Anderson S.,
RA Arachchi H.M., Barna N., Bastien V., Bloom T., Boguslavskiy L.,
RA Boukhalter B., Butler J., Calvo S.E., Camarata J., Chang J.,
RA Choepel Y., Collymore A., Cook A., Cooke P., Corum B., DeArrellano K.,
RA Diaz J.S., Dodge S., Dooley K., Dorris L., Elkins T., Engels R.,
RA Erickson J., Faro S., Ferreira P., FitzGerald M., Gage D., Galagan J.,
RA Gardyna S., Gnerre S., Graham L., Grand-Pierre N., Hafez N.,
RA Hegopian D., Hagos B., Hall J., Horton L., Hulme W., Iliev I.,
RA Jaffe D., Johnson R., Jones C., Kamal M., Kamat A., Karatas A.,
RA Kells C., Landers T., Levine R., Lindblad-Toh K., Liu G., Lui A.,
RA Ma L.-J., Mabbitt R., MacLean C., MacDonald P., Major J., Manning J.,
RA Matthews C., Mauceli E., McCarthy M., Meldrim J., Meneus L.,
RA Mihova T., Miengia V., Murphy T., Naylor J., Nguyen C., Nicol R.,
RA Nielsen C.B., Norbu C., O'Connor T., O'Donnell P., O'Neill D.,
RA Oliver J., Peterson K., Phunthang P., Pierre N., Purcell S.,
RA Rachupka A., Ramasamy U., Raymond C., Retta R., Rise C., Rogov P.,
RA Roman J., Schauer S., Schupback R., Seaman S., Severy P., Smirnov S.,
RA Smith C., Spencer B., Stange-Thomann N., Stojanovic N., Stubbs M.,
RA Talamas J., Tesfaye S., Theodore J., Topham K., Travers M.,
RA Vassiliev H., Venkataraman V.S., Viel R., Vo A., Wang S., Wilson B.,
RA Wu X., Wyman D., Young G., Zainoun J., Zembek L., Zimmer A., Zody M.,
RA Lander E.;
RT "Genome Sequence of Aspergillus nidulans";
RL Submitted (JAN-2004) to the EMBL/GenBank/DBJ databases.
RC -1- CAUTION: The sequence shown here is derived from an
CC preliminary data.
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC EMBL; AACD01000170; EAA61491.1; -; Genomic_DNA.
KW Hypothetical protein.
SQ SEQUENCE 3141 AA; 358018 MW; F4PB5E503921110A CRC64;

Query Match 85.7%; Score 36; DB 2; Length 3141;
Best Local Similarity 77.8%; Pred. No. 4.6e+02;
Matches 7; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 1280 TSTSSLEID 1288
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DT 01-MAR-2001 (TrEMBLrel. 16, Created)
 DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE Chalcone synthase.
 GN Name=Chs;
 OS Ionopsidium abulense.
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicotyledons;
 OC rosids; eurosids 1; Brassicales; Brassicaceae; Ionopsidium.
 OX NCBI_TaxID=126275;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX PubMed=11250830;
 RA Koch M., Haubold B., Mitchell-Olds T.;
 RT "Molecular systematics of the Brassicaceae: evidence from coding
 RT plastidic matk and nuclear Chs sequences.";
 RL Am. J. Bot. 88:534-544 (2001).
 CC -1- SIMILARITY: Belongs to the chalcone/stilbene synthases family.
 DR EMBL: AF144542; AAG43360.1; -; Genomic_DNA.
 DR HSP: P30074; ICGZ.
 DR SRR: Q9FR65; 11-399.
 DR GO: GO:0008415; F:acyltransferase activity; IEA.
 DR GO: GO:0016740; F:transferase activity; IEA.
 DR GO: GO:0009058; P:biosynthesis; IEA.
 DR InterPro: IPR001099; Chal_sti_synt_N.
 DR InterPro: IPR011141; PKS_III.
 DR Pfam: PF00195; Chal_sti_synt_N; 1.
 DR PIRSF: PIRSF000451; PKS_III; 1.
 DR ProDom: PD000453; N-C synthase; 1.
 DR PROSITE: PS00441; CHALCONE SYNTH; 1.
 KW Acyltransferase; Transferase.
 SQ SEQUENCE 399 AA; 43454 MW; 3B40A85A6CD16959 CRC64;

 Query Match 81.0%; Score 34; DB 2; Length 399;
 Best Local Similarity 77.8%; Pred. No. 1.1e+02;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

 QY 1 TSTTSLELD 9
 Db 6 TTTTSLSLD 14

 RESULT 12
 Q4U978_THEAN
 ID Q4U978_THEAN PRELIMINARY; PRT; 424 AA.
 AC Q4U978;
 DT 13-SEP-2005 (TrEMBLrel. 31, Created)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
 DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
 DE Short-chain dehydrogenase/reductase (SDR family member),
 DE putative.
 GN ORFNames=TA10920;
 OS Theileria annulata.
 OC Eukaryota; Alveolata; Apicomplexa; Piroplasmida; Theileriidae;
 OC Theileria.
 OX NCBI_TaxID=5874;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=Ankara isolate clone C9;
 RA Pain A., Renaud H., Murphy L., Harris D.A., Quail M.A., Berriman M.,
 RA Hall N., Barrell B.G.;
 RT "The chromosome 3 genome sequence of Theileria annulata.";
 RL Submitted (MAR-2005) to the EMBL/GenBank/DBJ databases.
 CC -1- SIMILARITY: Belongs to the short-chain dehydrogenases/reductases
 CC (SDR) family.
 CC EMBL: CR940353; CAI76625.1; -; Genomic_DNA.
 DR InterPro: IPR002198; ADH_short.
 DR InterPro: IPR02347; Adh_short_C2.
 DR Pfam: PF00106; adh_short; 1.
 DR PRINTS: PR00081; GDRDH.
 DR PROSITE: PS00080; SDRFAMILY.
 KW Oxidoreductase.
 SQ SEQUENCE 424 AA; 48668 MW; F8769AABC459F965 CRC64;

Query Match 81.0%; Score 34; DB 2; Length 424;
 Best Local Similarity 87.5%; Pred. No. 1.2e+02;
 Matches 7; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

 QY 2 STTSLELD 9
 Db 292 STTSLELD 299

 RESULT 13
 Q7T3Q3_BRARE
 ID Q7T3Q3_BRARE PRELIMINARY; PRT; 475 AA.
 AC Q7T3Q3;
 DT 01-OCT-2003 (TrEMBLrel. 25, Created)
 DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
 DT 01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
 DE Cannabinoid receptor-like protein cb1-zf (Cannabinoid receptor
 DE 1).
 GN Name=cnrl; ORFNames=CH211-241P10.4-001;
 OS Brachydanio rerio (zebrafish) (Danio rerio).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Osteichthyes; Cypriniformes;
 OC Cyprinidae; Danio.
 OX NCBI_TaxID=7955;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RA Rodriguez R.E., Rodriguez-Martin I., Gonzalez-Sarmiento R.;
 RL Submitted (SEP-2002) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RA Dyer L.;
 RL Submitted (DEC-2004) to the EMBL/GenBank/DBJ databases.
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
 DR EMBL: AY148349; AAN46748.1; -; mRNA.
 DR EMBL: BX537259; CAI29398.1; -; Genomic DNA.
 DR Ensembl: ENSDARG0000009020; Danio rerio.
 DR ZFIN: ZDB-GENE-040312-3; cnrl.
 DR GO: GO:0016021; C:integral to membrane; IEA.
 DR GO: GO:0004949; F:cannabinoid receptor activity; IEA.
 DR GO: GO:0004872; F:receptor activity; IEA.
 DR GO: GO:0007186; P:G-protein coupled receptor protein signalin. .; IEA.
 DR GO: GO:0007165; P:signal transduction; IEA.
 DR InterPro: IPR002230; Cnoid receptor.
 DR InterPro: IPR000810; Cnoid receptor1.
 DR InterPro: IPR000276; GPCR_Rhodpsn.
 DR Pfam: PF00001; 7tm_1; 1.
 DR PRINTS: PR00522; CANNABINOIDIR.
 DR PRINTS: PR00362; CANNABINOIDIR.
 DR PRINTS: PR00237; GPCR_RHODOPSIN.
 DR PROSITE: PS00237; G-PROTEIN_RECEP_F1_1; UNKNOWN_1.
 DR PROSITE: PS00262; G-PROTEIN_RECEP_F1_2; 1.
 KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.
 SQ SEQUENCE 475 AA; 53044 MW; 98FEF62D883605D4 CRC64;

 Query Match 81.0%; Score 34; DB 2; Length 475;
 Best Local Similarity 77.8%; Pred. No. 1.4e+02;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

 QY 1 TSTTSLELD 9
 Db 426 TSTTSLELD 434

 RESULT 14
 Q5XHK0_XENLA
 ID Q5XHK0_XENLA PRELIMINARY; PRT; 773 AA.
 AC Q5XHK0;
 DT 25-OCT-2004 (TrEMBLrel. 28, Created)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
 DE LOC494983 protein.
 GN Name=LOC494983;

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OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidea; Pipidae;
OC Xenopodinae; Xenopus; Xenopus.
OX NCBI_TaxID=8355;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RX MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA Richardson P.;
RT "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT initiative.";
RL Dev. Dyn. 225:384-391(2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heide F.,
RA Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raba S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butlerfield V.S.N., Krawinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Embryo;
RA Klein S., Gerhard D.S.;
RL Submitted (OCT-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC084057; AA084057.1; -; mRNA.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0046872; F:metal ion binding; IEA.
DR InterPro; IPR001594; Znf_DHHC.
DR Pfam; PF01529; zF-DHHC; 1.
DR ProDom; PD03041; Znf_DHHC; 1.
DR PROSITE; PS50216; ZF_DHHC; 1.
SQ SEQUENCE 773 AA; 85033 MW; 36BAE3DC5829C706 CRC64;

Query Match 81.0%; Score 34; DB 2; Length 773;
Best Local Similarity 77.8%; Pred. NO. 2.4e+02;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 640 TSTTSLELD 648

RESULT 15
Q88XH5_LACPL PRELIMINARY; PRT; 1010 AA.
AC Q88XH5;
DT 01-JUN-2003 (TRENBLrel. 24, Created)
DT 01-JUN-2003 (TRENBLrel. 24, Last sequence update)
DT 01-OCT-2003 (TRENBLrel. 25, Last annotation update)
DE Cell surface protein.
GN OrderedLocusNames=lp.1229;
OS Lactobacillus plantarum.
OC Bacteria; Firmicutes; Lactobacillales; Lactobacillaceae;
OC Lactobacillus.
```

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OX NCBI_TaxID=1590;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=NCIMB 8826 / WCFS1;
RX MEDLINE=22480296; PubMed=12566566; DOI=10.1073/pnas.0337704100;
RA Kleerebezem M., Boekhorst J., van Kranenburg R., Molenaar D.,
RA Kuipers O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M.,
RA Fiers M.W.E.J., Stiekema W., Klein Lankhorst R.M., Bron P.A.,
RA Hoffer S.M., Nierop Groot M.N., Kerkhoven R., De Vries M., Ursing B.,
RA De Vos W.M., Siezen R.J.;
RT "Complete genome sequence of Lactobacillus plantarum WCFS1.";
RL Proc. Natl. Acad. Sci. U.S.A. 100:1990-1995(2003).
DR EMBL; AL935255; CAD63738.1; -; Genomic_DNA.
DR GO; GO:0009986; C:cell surface; IEA.
DR InterPro; IPR004829; Csurface_antigen.
DR InterPro; IPR009459; DUF1085_anchor.
DR InterPro; IPR001899; Gram_pos_anchor.
DR Pfam; PF06458; NucBP; 4.
DR ProDom; PD153432; Csurface_antigen; 1.
DR PROSITE; PS50847; GRAM_POS_ANCHORING; 1.
KW Complete proteome.
SQ SEQUENCE 1010 AA; 107970 MW; 13E7ED8C36D6F859 CRC64;

Query Match 81.0%; Score 34; DB 2; Length 1010;
Best Local Similarity 77.8%; Pred. NO. 3.3e+02;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 646 TITTSLELD 654

Search completed: December 2, 2005, 23:19:46
Job time : 30.2281 secs
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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:28:10 ; Search time 6.11798 Seconds
(without alignments)
121.622 Million cell updates/sec

Title: US-10-691-125-5
Perfect score: 42
Sequence: 1 TSSTTSLELD 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA.*
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2: /cgn2_6/ptodata/1/iaa/6 COMB.pap.*
3: /cgn2_6/ptodata/1/iaa/H_COMB.pap.*
4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pap.*
5: /cgn2_6/ptodata/1/iaa/RE_COMB.pap.*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	42	100.0	32	2	US-09-657-276-305
3	42	100.0	33	1	US-08-064-111C-2
4	42	100.0	33	2	US-09-623-548A-306
5	42	100.0	33	2	US-09-657-276-306
6	42	100.0	56	6	5217896-7
7	42	100.0	141	1	US-08-411-726-5
8	42	100.0	141	6	5217896-3
9	42	100.0	177	2	US-09-643-597-165
10	42	100.0	177	2	US-09-643-597-166
11	42	100.0	177	2	US-09-480-884A-165
12	42	100.0	177	2	US-09-480-884A-166
13	42	100.0	177	2	US-09-542-615A-165
14	42	100.0	177	2	US-09-542-615A-166
15	42	100.0	177	2	US-09-606-421B-165
16	42	100.0	177	2	US-09-606-421B-166
17	42	100.0	177	2	US-09-976-594-447
18	42	100.0	177	2	US-09-466-396A-165
19	42	100.0	177	2	US-09-466-396A-166
20	42	100.0	177	2	US-09-476-496A-165
21	42	100.0	177	2	US-09-476-496A-166
22	42	100.0	177	2	US-09-630-940B-165
23	42	100.0	177	2	US-09-630-940B-166
24	42	100.0	177	2	US-09-285-479-165
25	42	100.0	177	2	US-09-285-479-166
26	42	100.0	177	2	US-10-007-700-165
27	42	100.0	177	2	US-10-007-700-166

Sequence 1, Appli
Sequence 10164, A
Sequence 19012, A
Sequence 15, Appl
Sequence 15, Appl
Sequence 15, Appl
Sequence 42894, A
Sequence 16966, A
Sequence 26203, A
Sequence 4563, Ap
Sequence 39758, A
Sequence 5975, A
Sequence 5912, A
Sequence 3520, Ap
Sequence 2, Appli
Sequence 41668, A
Sequence 28163, A
Sequence 22054, A

28 42 100.0 209 1 US-08-064-111C-1
29 42 100.0 256 2 US-09-949-016-10164
30 37 88.1 507 2 US-09-248-796A-19012
31 32 76.2 580 1 US-08-420-235B-15
32 32 76.2 580 2 US-08-793-624-15
33 32 76.2 580 4 PCT-US95-10194-15
34 31 73.8 156 2 US-09-270-767-42894
35 31 73.8 288 2 US-09-248-796A-16966
36 31 73.8 322 2 US-09-248-796A-26203
37 31 73.8 434 2 US-09-328-352-4563
38 30 71.4 127 2 US-09-270-767-39758
39 30 71.4 127 2 US-09-270-767-54975
40 30 71.4 237 2 US-09-270-767-56912
41 30 71.4 421 2 US-10-104-047-3520
42 30 71.4 498 2 US-09-965-599-2
43 30 71.4 716 2 US-09-270-767-41668
44 29 69.0 209 2 US-09-248-796A-28163
45 29 69.0 211 2 US-09-248-796A-22054

ALIGNMENTS

RESULT 1
US-09-623-548A-305
; Sequence 305, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudreau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 305
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-305

Query Match 100.0%; Score 42; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.14;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSSTTSLELD 9

Db 23 TSSTTSLELD 31

RESULT 2

US-09-657-276-305
; Sequence 305, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique

; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 305
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-657-276-305

Query Match 100.0%; Score 42; DB 2; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.14;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 3
US-08-064-111C-2
; Sequence 2, Application US/08064111C
; Patent No. 5688760
; GENERAL INFORMATION:
; APPLICANT: Kemp, Bruce E.
; APPLICANT: Nicholson, Geoffrey C.
; APPLICANT: Martin, Thomas J.
; APPLICANT: Fenton, Anna J.
; TITLE OF INVENTION: COMPOUNDS AND COMPOSITIONS WHICH INHIBIT
; TITLE OF INVENTION: BONE RESORPTION
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Flehr, Hobbach, Test, Albritton & Herbert,
; ADDRESSEE: Attn: W.H. Dreger
; STREET: 4 Embarcadero Center, Suite 3400
; CITY: San Francisco
; STATE: California
; COUNTRY: United States
; ZIP: 94111-4187
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/064,111C
; FILING DATE: 12-AUG-1993
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/AU91/00580
; FILING DATE: 13-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: AU PK9567
; FILING DATE: 19-NOV-1991
; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: AU PK3879
; FILING DATE: 13-DEC-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Dreger, Walter H.
; REGISTRATION NUMBER: 24,190
; REFERENCE/DOCKET NUMBER: A-58456/WH
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 781-1989
; TELEFAX: (415) 398-3249
; TELEX: 910 277299
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 33 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-064-111C-2

Query Match 100.0%; Score 42; DB 1; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.14;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 4
US-09-623-548A-306
; Sequence 306, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 306
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-306

Query Match 100.0%; Score 42; DB 2; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.14;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 21 TSTTSLELD 29

RESULT 5
US-09-657-276-306

; Sequence 306, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 306
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
; US-09-657-276-306

Query Match 100.0%; Score 42; DB 2; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.14; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 21 TSTTSLELD 29

RESULT 6
5217896-7
; Patent No. 5217896
; APPLICANT: KRAMER, STEVEN P.; VALENZUELA, DAVID M.; REYNOLDS
; JR., FREDERICK H.; SORVILLO, JOHN M.
; TITLE OF INVENTION: MONOCLONAL ANTIBODIES RECOGNIZING
; PARATHYROID HORMONE-LIKE PROTEIN
; NUMBER OF SEQUENCES: 8
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/292,263
; FILING DATE: 30-DEC-1988
; SEQ ID NO: 7
; LENGTH: 56
5217896-7

Query Match 100.0%; Score 42; DB 6; Length 56;
Best Local Similarity 100.0%; Pred. No. 0.26; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 44 TSTTSLELD 52

RESULT 7
US-08-411-726-5
; Sequence 5, Application US/08411726
; Patent No. 5880093
; GENERAL INFORMATION:
; APPLICANT: BAGNOLI, Franco
; TITLE OF INVENTION: Use of Parathormone, Its Biologically
; TITLE OF INVENTION: Active Fragments and Correlated Peptides, for The Preparation

; TITLE OF INVENTION: Pharmaceutical Compositions Useful for The Treatment of Pregnant
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Kenyon & Kenyon
; STREET: 1 Broadway
; CITY: New York
; STATE: NY
; COUNTRY: US
; ZIP: 10004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS 6.2
; SOFTWARE: WordPerfect 6.1 for Windows
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/411,726
; FILING DATE: 05-APR-1995
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/EP93/02755
; FILING DATE: 08-OCT-1993
; APPLICATION NUMBER: MI-92A002331
; FILING DATE: 09-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: PALMESE, Maria Luisa
; REGISTRATION NUMBER: 34,402
; REFERENCE/DOCKET NUMBER: 2111/1300
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-425-7200
; TELEFAX: 212-425-5288
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 141 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-411-726-5

Query Match 100.0%; Score 42; DB 1; Length 141;
Best Local Similarity 100.0%; Pred. No. 0.71; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 129 TSTTSLELD 137

RESULT 8
5217896-3
; Patent No. 5217896
; APPLICANT: KRAMER, STEVEN P.; VALENZUELA, DAVID M.; REYNOLDS
; JR., FREDERICK H.; SORVILLO, JOHN M.
; TITLE OF INVENTION: MONOCLONAL ANTIBODIES RECOGNIZING
; PARATHYROID HORMONE-LIKE PROTEIN
; NUMBER OF SEQUENCES: 8
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/292,263
; FILING DATE: 30-DEC-1988
; SEQ ID NO: 3
; LENGTH: 141
5217896-3

Query Match 100.0%; Score 42; DB 6; Length 141;
Best Local Similarity 100.0%; Pred. No. 0.71; Indels 0; Gaps 0;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 129 TSTTSLELD 137

RESULT 9

; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C8
; CURRENT APPLICATION NUMBER: US/09/542.615A
; CURRENT FILING DATE: 2000-04-14
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-542-615A-165

Query Match 100.0%; Score 42; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.91;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
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Db 165 TSTTSLELD 173

RESULT 14

US-09-542-615A-166
; Sequence 166, Application US/09542615A
; Patent No. 6518256
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy A.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C8
; CURRENT APPLICATION NUMBER: US/09/542.615A
; CURRENT FILING DATE: 2000-04-14
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-542-615A-166

Query Match 100.0%; Score 42; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.91;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
|||
Db 165 TSTTSLELD 173

RESULT 15

US-09-606-421B-165
; Sequence 165, Application US/09606421B
; Patent No. 6531315
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yahir A.W.

; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C9
; CURRENT APPLICATION NUMBER: US/09/606.421B
; CURRENT FILING DATE: 2000-06-28
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-606-421B-165

Query Match 100.0%; Score 42; DB 2; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.91;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
|||
Db 165 TSTTSLELD 173

Search completed: December 2, 2005, 22:38:23
Job time : 7.11798 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:35:41 ; Search time 20.0225 Seconds
(without alignments)
187.812 Million cell updates/sec

Title: US-10-691-125-5
Perfect score: 42
Sequence: 1 TSTTSLELD 9

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Gapop 10.0 , Gapext 0.5

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Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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Published Applications AA_Main:
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2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
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2	42	100.0	12	5	US-10-362-259-8
3	42	100.0	32	6	US-11-066-697-305
4	42	100.0	33	5	US-10-362-259-4
5	42	100.0	33	6	US-11-066-697-306
6	42	100.0	133	4	US-10-398-449-41
7	42	100.0	135	4	US-10-398-449-42
8	42	100.0	139	4	US-10-344-279-1
9	42	100.0	139	4	US-10-258-477-1
10	42	100.0	139	4	US-10-398-449-33
11	42	100.0	141	4	US-10-344-279-2
12	42	100.0	141	4	US-10-258-477-2
13	42	100.0	141	4	US-10-398-449-32
14	42	100.0	141	5	US-10-691-125-1
15	42	100.0	173	4	US-10-344-279-3
16	42	100.0	173	4	US-10-258-477-3
17	42	100.0	175	4	US-10-171-311-192
18	42	100.0	177	3	US-09-735-705-165
19	42	100.0	177	3	US-09-735-705-166
20	42	100.0	177	3	US-09-850-716A-165
21	42	100.0	177	3	US-09-850-716A-166
22	42	100.0	177	3	US-09-897-778-165
23	42	100.0	177	3	US-09-897-778-166
24	42	100.0	177	3	US-09-466-396A-165
25	42	100.0	177	3	US-09-466-396A-166
26	42	100.0	177	4	US-10-007-700-165
27	42	100.0	177	4	US-10-007-700-166

28 42 100.0 177 4 US-10-117-982-165 Sequence 165, App
29 42 100.0 177 4 US-10-117-982-166 Sequence 166, App
30 42 100.0 177 4 US-10-313-986-165 Sequence 165, App
31 42 100.0 177 4 US-10-313-986-166 Sequence 166, App
32 42 100.0 177 5 US-10-775-972-165 Sequence 165, App
33 42 100.0 177 5 US-10-775-972-166 Sequence 166, App
34 42 100.0 177 5 US-10-922-124-165 Sequence 165, App
35 42 100.0 177 5 US-10-922-124-166 Sequence 166, App
36 42 100.0 186 5 US-10-450-763-48399 Sequence 48399, A
37 42 100.0 196 5 US-10-511-698-8 Sequence 8, Appli
38 42 100.0 202 5 US-10-511-698-9 Sequence 9, Appli
39 42 100.0 203 4 US-10-398-449-43 Sequence 43, Appli
40 42 100.0 209 4 US-10-398-449-34 Sequence 34, Appli
41 42 100.0 209 5 US-10-511-698-7 Sequence 7, Appli
42 42 100.0 220 5 US-10-450-763-48402 Sequence 48402, A
43 38 90.5 66 4 US-10-437-963-125086 Sequence 125086,
44 36 85.7 9 5 US-10-362-259-7 Sequence 7, Appli
45 36 85.7 170 4 US-10-425-114-47385 Sequence 47385, A

ALIGNMENTS

RESULT 1
US-10-691-125-5
; Sequence 5, Application US/10691125
; Publication No. US2005003023A1
; GENERAL INFORMATION:
; APPLICANT: Corrales, Pierpaolo
; APPLICANT: Cusi, Maria Grazia
; APPLICANT: Francini, Guido
; TITLE OF INVENTION: PTH-RP RELATED PEPTIDE CANCER THERAPEUTICS
; FILE REFERENCE: 126442-100004US
; CURRENT APPLICATION NUMBER: US/10/691.125
; CURRENT FILING DATE: 2003-10-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 5
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MISC FEATURE
; OTHER INFORMATION: PTR-4
US-10-691-125-5

Query Match 100.0%; Score 42; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 1 TSTTSLELD 9

RESULT 2
US-10-362-259-8
; Sequence 8, Application US/10362259
; Publication No. US20050069569A1
; GENERAL INFORMATION:
; APPLICANT: BOILEAU, GUY
; TITLE OF INVENTION: METHOD AND COMPOSITIONS FOR PROMOTING OSTEOGENESIS
; FILE REFERENCE: 1031-03
; CURRENT APPLICATION NUMBER: US/10/362,259
; CURRENT FILING DATE: 2003-02-21
; PRIOR APPLICATION NUMBER: PCT/CA01/01220
; PRIOR FILING DATE: 2001-08-23
; PRIOR APPLICATION NUMBER: 60/227,012
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 12

; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-362-259-8

Query Match 100.0%; Score 42; DB 5; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
| | | | | | | |
Db 2 TSTTSLELD 10

RESULT 3

US-11-066-697-305
; Sequence 305, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:

; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibaudau, Karen

; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD

; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 305
; LENGTH: 32

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-305

Query Match 100.0%; Score 42; DB 6; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.69;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
| | | | | | | |
Db 23 TSTTSLELD 31

RESULT 4

US-10-362-259-4
; Sequence 4, Application US/10362259
; Publication No. US20050069569A1
; GENERAL INFORMATION:

; APPLICANT: BOILEAU, GUY

; TITLE OF INVENTION: METHOD AND COMPOSITIONS FOR PROMOTING OSTEOGENESIS

; FILE REFERENCE: 1031-03
; CURRENT APPLICATION NUMBER: US/10/362,259
; CURRENT FILING DATE: 2003-02-21
; PRIOR APPLICATION NUMBER: PCT/CA01/01220
; PRIOR FILING DATE: 2001-08-23
; PRIOR APPLICATION NUMBER: 60/227,012
; PRIOR FILING DATE: 2000-08-23

; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 33

; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-362-259-4

Query Match 100.0%; Score 42; DB 5; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.71;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
| | | | | | | |
Db 23 TSTTSLELD 31

RESULT 5

US-11-066-697-306
; Sequence 306, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:

; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibaudau, Karen

; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD

; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 306
; LENGTH: 33

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-306

Query Match 100.0%; Score 42; DB 6; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.71;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
| | | | | | | |
Db 21 TSTTSLELD 29

RESULT 6

US-10-398-449-41
; Sequence 41, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:

; APPLICANT: Hollick, Michael F.

; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation

; TITLE OF INVENTION: Using Topically Applied Nucleic Acid Molecules
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10

; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 41


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; LENGTH: 133
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hPTHrP (7-139)
US-10-398-449-41

Query Match      100.0%; Score 42; DB 4; Length 133;
Best Local Similarity 100.0%; Pred. No. 3.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 TSTTSLELD 9
Db      123 TSTTSLELD 131

RESULT 7
US-10-398-449-42
; Sequence 42, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 42
; LENGTH: 135
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hPTHrP (7-141)
US-10-398-449-42

Query Match      100.0%; Score 42; DB 4; Length 135;
Best Local Similarity 100.0%; Pred. No. 3.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 TSTTSLELD 9
Db      123 TSTTSLELD 131

RESULT 8
US-10-344-279-1
; Sequence 1, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 139
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-1

Query Match      100.0%; Score 42; DB 4; Length 139;
Best Local Similarity 100.0%; Pred. No. 3.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 TSTTSLELD 9
Db      123 TSTTSLELD 131

us-10-691-125-5.rapbm

; LENGTH: 133
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hPTHrP (7-139)
US-10-398-449-41

Query Match      100.0%; Score 42; DB 4; Length 133;
Best Local Similarity 100.0%; Pred. No. 3.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 TSTTSLELD 9
Db      129 TSTTSLELD 137

RESULT 9
US-10-258-477-1
; Sequence 1, Application US/10258477
; Publication No. US2004001824A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: CELL GROWTH-INHIBITING AGENT
; FILE REFERENCE: PH-1172-PCT
; CURRENT APPLICATION NUMBER: US/10/258,477
; CURRENT FILING DATE: 2003-02-25
; PRIOR APPLICATION NUMBER: JP2000-131793
; PRIOR FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: JP2000-173834
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 139
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-258-477-1

Query Match      100.0%; Score 42; DB 4; Length 139;
Best Local Similarity 100.0%; Pred. No. 3.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 TSTTSLELD 9
Db      129 TSTTSLELD 137

RESULT 10
US-10-398-449-33
; Sequence 33, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Holick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 33
; LENGTH: 139
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hPTHrP (1-139)
US-10-398-449-33

Query Match      100.0%; Score 42; DB 4; Length 139;
Best Local Similarity 100.0%; Pred. No. 3.3;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 TSTTSLELD 9
Db      129 TSTTSLELD 137

RESULT 11
US-10-344-279-2
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; Sequence 2, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISYA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-2

Query Match      100.0%; Score 42; DB 4; Length 141;
Best Local Similarity 100.0%; Pred. No. 3.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TSTTSLELD 9
Db      129 TSTTSLELD 137

RESULT 12
US-10-258-477-2
; Sequence 2, Application US/10258477
; Publication No. US20040001824A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: CELL GROWTH-INHIBITING AGENT
; FILE REFERENCE: PH-1172-PCT
; CURRENT APPLICATION NUMBER: US/10/258,477
; CURRENT FILING DATE: 2003-02-25
; PRIOR APPLICATION NUMBER: JP2000-131793
; PRIOR FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: JP2000-173834
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-258-477-2

Query Match      100.0%; Score 42; DB 4; Length 141;
Best Local Similarity 100.0%; Pred. No. 3.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TSTTSLELD 9
Db      129 TSTTSLELD 137

RESULT 13
US-10-398-449-32
; Sequence 32, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Holick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06

; Sequence 2, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISYA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 173
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-3

Query Match      100.0%; Score 42; DB 4; Length 173;
Best Local Similarity 100.0%; Pred. No. 4.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TSTTSLELD 9
Db      129 TSTTSLELD 137

RESULT 14
US-10-691-125-1
; Sequence 1, Application US/10691125
; Publication No. US20050033023A1
; GENERAL INFORMATION:
; APPLICANT: Correale, Pierpaolo
; APPLICANT: Cusi, Maria Grazia
; APPLICANT: Francini, Guido
; TITLE OF INVENTION: PTH-RP RELATED PEPTIDE CANCER THERAPEUTICS
; FILE REFERENCE: 126442-100004US
; CURRENT APPLICATION NUMBER: US/10/691,125
; CURRENT FILING DATE: 2003-10-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MISC FEATURE
; OTHER INFORMATION: Human PTH-rp amino acid sequence
US-10-691-125-1

Query Match      100.0%; Score 42; DB 5; Length 141;
Best Local Similarity 100.0%; Pred. No. 3.4;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TSTTSLELD 9
Db      129 TSTTSLELD 137

RESULT 15
US-10-344-279-3
; Sequence 3, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISYA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 173
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-3

Query Match      100.0%; Score 42; DB 4; Length 173;
Best Local Similarity 100.0%; Pred. No. 4.2;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 TSTTSLELD 9

|||||

Db 129 TSTTSLELD 137

Search completed: December 2, 2005, 23:10:42
Job time : 20.0225 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:36:21 ; Search time 0.758427 Seconds
(without alignments)
56.822 Million cell updates/sec

Title: US-10-691-125-5
Perfect score: 42
Sequence: 1 TSTTSLELD 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 26661 seqs, 4788334 residues

Total number of hits satisfying chosen parameters: 26661

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA_New:
1: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
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3: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
4: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
5: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
6: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
7: /cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep.*
8: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	42	100.0	24	7	US-11-058-384-5
2	42	100.0	33	7	US-11-058-384-4
3	42	100.0	33	7	US-11-058-384-9
4	42	100.0	33	7	US-11-058-384-12
5	42	100.0	33	7	US-11-058-384-14
6	42	100.0	175	7	US-11-058-384-2
7	42	100.0	177	6	US-10-623-155-165
8	42	100.0	177	6	US-10-623-155-166
9	39	92.9	33	7	US-11-058-384-10
10	37	88.1	33	7	US-11-058-384-11
11	34	81.0	23	7	US-11-058-384-6
12	31	73.8	33	7	US-11-058-384-8
13	30	71.4	245	7	US-11-054-515-1950
14	29	69.0	182	7	US-11-074-176-218
15	29	69.0	246	7	US-11-054-515-928
16	29	69.0	246	7	US-11-054-515-1308
17	29	69.0	246	7	US-11-054-515-1426
18	29	69.0	246	7	US-11-054-515-1781
19	29	69.0	246	7	US-11-054-515-1818
20	29	69.0	247	7	US-11-054-515-720
21	29	69.0	248	7	US-11-054-515-337
22	29	69.0	248	7	US-11-054-515-339
23	29	69.0	248	7	US-11-054-515-347
24	29	69.0	248	7	US-11-054-515-354
25	29	69.0	248	7	US-11-054-515-394

Sequence 453, App
Sequence 484, App
Sequence 597, App
Sequence 623, App
Sequence 643, App
Sequence 1675, App
Sequence 2, Appli
Sequence 321, App
Sequence 322, App
Sequence 323, App
Sequence 324, App
Sequence 325, App
Sequence 326, App
Sequence 328, App
Sequence 329, App
Sequence 330, App
Sequence 331, App
Sequence 332, App
Sequence 333, App
Sequence 334, App

ALIGNMENTS

RESULT 1

US-11-058-384-5
; Sequence 5, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 5
; LENGTH: 24
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-11-058-384-5

Query Match 100.0%; Score 42; DB 7; Length 24;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 14 TSTTSLELD 22

RESULT 2

US-11-058-384-4
; Sequence 4, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14

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; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 4
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-4

Query Match      100.0%; Score 42; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0021;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 3
US-11-058-384-9
; Sequence 9, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; PRIOR FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 9
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-9

Query Match      100.0%; Score 42; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0021;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 4
US-11-058-384-12
; Sequence 12, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; PRIOR FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-12

Query Match      100.0%; Score 42; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0021;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 5
US-11-058-384-14
; Sequence 14, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; PRIOR FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 14
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-14

Query Match      100.0%; Score 42; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0021;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 23 TSTTSLELD 31

RESULT 6
US-11-058-384-2
; Sequence 2, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 2
; LENGTH: 175
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-2

Query Match      100.0%; Score 42; DB 7; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
Db 165 TSTTSLELD 173

RESULT 7
US-10-623-155-165
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; Sequence 165, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-165

Query Match 100.0%; Score 42; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
|:|||||
Db 165 TSTTSLELD 173

RESULT 8

US-10-623-155-166
; Sequence 166, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-166

Query Match 100.0%; Score 42; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
|:|||||
Db 165 TSTTSLELD 173

RESULT 9

US-11-058-384-10
; Sequence 10, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13

; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 10
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-10

Query Match 92.9%; Score 39; DB 7; Length 33;
Best Local Similarity 88.9%; Pred. No. 0.009;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
|:|||||
Db 23 TATTSLELD 31

RESULT 10

US-11-058-384-11
; Sequence 11, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 11
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-11

Query Match 88.1%; Score 37; DB 7; Length 33;
Best Local Similarity 88.9%; Pred. No. 0.024;
Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 TSTTSLELD 9
|:|||||
Db 23 TSTASLELD 31

RESULT 11

US-11-058-384-6
; Sequence 6, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-6

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Query Match      81.0%; Score 34; DB 7; Length 23;
Best Local Similarity 77.8%; Pred. No. 0.067;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
   : |||||
Db 13 SGTSLELD 21

RESULT 12
US-11-058-384-8
; Sequence 8, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: FIASCHI-TAESCH, Nathalie
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 8
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-8

Query Match      73.8%; Score 31; DB 7; Length 33;
Best Local Similarity 66.7%; Pred. No. 0.43;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
   : |||||
Db 23 TATALELD 31

RESULT 13
US-11-054-515-1950
; Sequence 1950, Application US/11054515
; Publication No. US2005025532A1
; GENERAL INFORMATION:
; APPLICANT: Ruben et al.
; TITLE OF INVENTION: Antibodies that Immunospecifically Bind Blys
; FILE REFERENCE: PF523P3
; CURRENT APPLICATION NUMBER: US/11/054,515
; CURRENT FILING DATE: 2005-02-10
; PRIOR APPLICATION NUMBER: 60/543,296
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/580,347
; PRIOR FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 10/293,418
; PRIOR FILING DATE: 2002-11-14
; PRIOR APPLICATION NUMBER: 60/331,469
; PRIOR FILING DATE: 2001-11-16
; PRIOR APPLICATION NUMBER: 60/340,817
; PRIOR FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 03/880,748
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/293,499
; PRIOR FILING DATE: 2001-05-25
; PRIOR APPLICATION NUMBER: 60/277,379
; PRIOR FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: 60/276,248
; PRIOR FILING DATE: 2001-03-16
; PRIOR APPLICATION NUMBER: 60/240,816
; PRIOR FILING DATE: 2000-10-17
; Remaining Prior Application data removed - See File Wrapper or PALM.

Query Match      81.0%; Score 34; DB 7; Length 23;
Best Local Similarity 77.8%; Pred. No. 0.067;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
   : |||||
Db 13 SGTSLELD 21

RESULT 12
US-11-058-384-8
; Sequence 8, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: FIASCHI-TAESCH, Nathalie
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 8
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-8

Query Match      73.8%; Score 31; DB 7; Length 33;
Best Local Similarity 66.7%; Pred. No. 0.43;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
   : |||||
Db 23 TATALELD 31

RESULT 13
US-11-054-515-1950
; Sequence 1950, Application US/11054515
; Publication No. US2005025532A1
; GENERAL INFORMATION:
; APPLICANT: Ruben et al.
; TITLE OF INVENTION: Antibodies that Immunospecifically Bind Blys
; FILE REFERENCE: PF523P3
; CURRENT APPLICATION NUMBER: US/11/054,515
; CURRENT FILING DATE: 2005-02-10
; PRIOR APPLICATION NUMBER: 60/543,296
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/580,347
; PRIOR FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 10/293,418
; PRIOR FILING DATE: 2002-11-14
; PRIOR APPLICATION NUMBER: 60/331,469
; PRIOR FILING DATE: 2001-11-16
; PRIOR APPLICATION NUMBER: 60/340,817
; PRIOR FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 03/880,748
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/293,499
; PRIOR FILING DATE: 2001-05-25
; PRIOR APPLICATION NUMBER: 60/277,379
; PRIOR FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: 60/276,248
; PRIOR FILING DATE: 2001-03-16
; PRIOR APPLICATION NUMBER: 60/240,816
; PRIOR FILING DATE: 2000-10-17
; Remaining Prior Application data removed - See File Wrapper or PALM.

; NUMBER OF SEQ ID NOS: 3247
; SEQ ID NO 1950
; LENGTH: 245
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-054-515-1950

Query Match      71.4%; Score 30; DB 7; Length 245;
Best Local Similarity 66.7%; Pred. No. 6.9;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
   : |||||
Db 76 TSTVSMELN 84

RESULT 14
US-11-074-176-218
; Sequence 218, Application US/11074176
; Publication No. US20050250135A1
; GENERAL INFORMATION:
; APPLICANT: Klaenhammer, Todd R.
; APPLICANT: Russell, William M.
; APPLICANT: Altermann, Eric
; APPLICANT: McAuliffe, Olivia
; APPLICANT: Peril, Andrea Azcarate
; TITLE OF INVENTION: Nucleic Acid Sequences Encoding
; FILE REFERENCE: 5051-694
; CURRENT APPLICATION NUMBER: US/11/074,176
; CURRENT FILING DATE: 2005-03-07
; PRIOR APPLICATION NUMBER: 60/551,161
; PRIOR FILING DATE: 2004-03-08
; NUMBER OF SEQ ID NOS: 381
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 218
; LENGTH: 182
; TYPE: PRT
; ORGANISM: Lactobacillus acidophilus
US-11-074-176-218

Query Match      69.0%; Score 29; DB 7; Length 182;
Best Local Similarity 55.6%; Pred. No. 8;
Matches 5; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 TSTTSLELD 9
   : |||||
Db 112 TATTAVKLD 120

RESULT 15
US-11-054-515-928
; Sequence 928, Application US/11054515
; Publication No. US2005025532A1
; GENERAL INFORMATION:
; APPLICANT: Ruben et al.
; TITLE OF INVENTION: Antibodies that Immunospecifically Bind Blys
; FILE REFERENCE: PF523P3
; CURRENT APPLICATION NUMBER: US/11/054,515
; CURRENT FILING DATE: 2005-02-10
; PRIOR APPLICATION NUMBER: 60/543,296
; PRIOR FILING DATE: 2004-02-11
; PRIOR APPLICATION NUMBER: 60/580,347
; PRIOR FILING DATE: 2004-06-18
; PRIOR APPLICATION NUMBER: 10/293,418
; PRIOR FILING DATE: 2002-11-14
; PRIOR APPLICATION NUMBER: 60/331,469
; PRIOR FILING DATE: 2001-11-16
; PRIOR APPLICATION NUMBER: 60/340,817
; PRIOR FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 09/880,748
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/293,499
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; PRIOR FILING DATE: 2001-05-25
; PRIOR APPLICATION NUMBER: 60/277,379
; PRIOR FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: 60/276,248
; PRIOR FILING DATE: 2001-03-16
; PRIOR APPLICATION NUMBER: 60/240,816
; PRIOR FILING DATE: 2000-10-17
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 3247
; SEQ ID NO 928
; LENGTH: 246
; TYPE: PRT
; ORGANISM: Homo.sapiens
US-11-054-515-928

Query Match      69.0%; Score 29; DB 7; Length 246;
Best Local Similarity 75.0%; Pred.No. 11;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      1 TSTTSLEL 8
      ||| |.||
Db      76 TSTASMEL 83

Search completed: December 2, 2005, 23:11:05
Job time : 1.95843 secs
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:35:41 ; Search time 20.0225 Seconds
(without alignments)
187.812 Million cell updates/sec

Title: US-10-691-125-4

Perfect score: 50

Sequence: 1 WLDSGVGTGS 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published Applications AA Main:
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2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	50	100.0	9	US-10-691-125-4	Sequence 4, Appli
2	50	100.0	21	US-10-362-259-6	Sequence 6, Appli
3	50	100.0	32	US-11-066-697-305	Sequence 305, App
4	50	100.0	33	US-10-362-259-4	Sequence 4, Appli
5	50	100.0	33	US-11-066-697-306	Sequence 306, App
6	50	100.0	133	US-10-398-449-41	Sequence 41, Appl
7	50	100.0	135	US-10-398-449-42	Sequence 42, Appl
8	50	100.0	139	US-10-344-279-1	Sequence 1, Appli
9	50	100.0	139	US-10-258-477-1	Sequence 1, Appli
10	50	100.0	139	US-10-398-449-33	Sequence 33, Appl
11	50	100.0	141	US-10-344-279-2	Sequence 2, Appli
12	50	100.0	141	US-10-258-477-2	Sequence 2, Appli
13	50	100.0	141	US-10-398-449-32	Sequence 32, Appl
14	50	100.0	141	US-10-691-125-1	Sequence 1, Appli
15	50	100.0	173	US-10-344-279-3	Sequence 3, Appli
16	50	100.0	173	US-10-258-477-3	Sequence 3, Appli
17	50	100.0	175	US-10-171-311-192	Sequence 192, App
18	50	100.0	177	US-09-735-705-165	Sequence 165, App
19	50	100.0	177	US-09-735-705-166	Sequence 166, App
20	50	100.0	177	US-09-850-716A-165	Sequence 165, App
21	50	100.0	177	US-09-850-716A-166	Sequence 166, App
22	50	100.0	177	US-09-897-778-165	Sequence 165, App
23	50	100.0	177	US-09-897-778-166	Sequence 166, App
24	50	100.0	177	US-09-466-396A-165	Sequence 165, App
25	50	100.0	177	US-09-466-396A-166	Sequence 166, App
26	50	100.0	177	US-10-007-700-165	Sequence 165, App
27	50	100.0	177	US-10-007-700-166	Sequence 166, App

28 50 100.0 177 4 US-10-117-982-165 Sequence 165, App
29 50 100.0 177 4 US-10-117-982-166 Sequence 166, App
30 50 100.0 177 4 US-10-313-986-165 Sequence 165, App
31 50 100.0 177 4 US-10-313-986-166 Sequence 166, App
32 50 100.0 177 5 US-10-775-972-165 Sequence 165, App
33 50 100.0 177 5 US-10-775-972-166 Sequence 166, App
34 50 100.0 177 5 US-10-922-124-165 Sequence 165, App
35 50 100.0 177 5 US-10-922-124-166 Sequence 166, App
36 50 100.0 186 5 US-10-450-763-48399 Sequence 48399, A
37 50 100.0 196 5 US-10-511-698-8 Sequence 8, Appli
38 50 100.0 202 5 US-10-398-449-43 Sequence 43, Appl
39 50 100.0 203 4 US-10-398-449-34 Sequence 34, Appl
40 50 100.0 209 5 US-10-511-698-7 Sequence 7, Appli
41 50 100.0 220 5 US-10-450-763-48402 Sequence 48402, A
42 42 84.0 319 4 US-10-369-493-16421 Sequence 16421, A
43 40 80.0 92 4 US-10-425-115-344865 Sequence 344865,
44 39 78.0 95 4 US-10-425-115-244957 Sequence 244957,

ALIGNMENTS

RESULT 1

US-10-691-125-4
; Sequence 4, Application US/10691125
; Publication No. US20050033023A1
; GENERAL INFORMATION:
; APPLICANT: Correale, Pierpaolo
; APPLICANT: Cusi, Maria Grazia
; TITLE OF INVENTION: PTH-RP RELATED PEPTIDE CANCER THERAPEUTICS
; FILE REFERENCE: 126442-100004US
; CURRENT APPLICATION NUMBER: US/10/691,125
; CURRENT FILING DATE: 2003-10-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURES:
; NAME/KEY: MISC FEATURE
; OTHER INFORMATION: PTR-3
US-10-691-125-4

Query Match 100.0%; Score 50; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 WLDSGVGTGS 9
Db 1 WLDSGVGTGS 9
|||||

RESULT 2

US-10-362-259-6
; Sequence 6, Application US/10362259
; Publication No. US20050069569A1
; GENERAL INFORMATION:
; APPLICANT: BOILEAU, GUY
; TITLE OF INVENTION: METHOD AND COMPOSITIONS FOR PROMOTING OSTEOGENESIS
; FILE REFERENCE: 1031-03
; CURRENT APPLICATION NUMBER: US/10/362,259
; CURRENT FILING DATE: 2003-02-21
; PRIOR APPLICATION NUMBER: PCT/CA01/01220
; PRIOR FILING DATE: 2001-08-23
; PRIOR APPLICATION NUMBER: 60/227,012
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 21

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-362-259-6

Query Match      100.0%; Score 50; DB 5; Length 21;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 5 WLDGVTGS 13

RESULT 3
US-11-066-697-305
; Sequence 305, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 305
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-305

Query Match      100.0%; Score 50; DB 6; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 5 WLDGVTGS 13

RESULT 4
US-10-362-259-4
; Sequence 41, Application US/10362259
; Publication No. US20050069569A1
; GENERAL INFORMATION:
; APPLICANT: BOILEAU, GUY
; TITLE OF INVENTION: METHOD AND COMPOSITIONS FOR PROMOTING OSTEOGENESIS
; FILE REFERENCE: 1031-03
; CURRENT APPLICATION NUMBER: US/10/362,259
; CURRENT FILING DATE: 2003-02-21
; PRIOR APPLICATION NUMBER: PCT/CA01/01220
; PRIOR FILING DATE: 2001-08-23
; PRIOR APPLICATION NUMBER: 60/227,012
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 33

; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-362-259-6

Query Match      100.0%; Score 50; DB 5; Length 21;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 5 WLDGVTGS 13

RESULT 3
US-11-066-697-306
; Sequence 306, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; CURRENT FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 306
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-306

Query Match      100.0%; Score 50; DB 6; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 3 WLDGVTGS 11

RESULT 6
US-10-398-449-41
; Sequence 41, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Hollick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; TITLE OF INVENTION: Using Topically Applied Nucleic Acid Molecules
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 41
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; LENGTH: 133
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hpthrp (7-139)
US-10-398-449-41

Query Match      100.0%; Score 50; DB 4; Length 133;
Best Local Similarity 100.0%; Pred. No. 0.44;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 105 WLDGVTGS 113

RESULT 7
US-10-398-449-42
; Sequence 42, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Holick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: PCT/US01/31082
; CURRENT FILING DATE: 2003-04-04
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 42
; LENGTH: 135
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hpthrp (7-141)
US-10-398-449-42

Query Match      100.0%; Score 50; DB 4; Length 135;
Best Local Similarity 100.0%; Pred. No. 0.45;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 105 WLDGVTGS 113

RESULT 8
US-10-344-279-1
; Sequence 1, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 139
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-1

Query Match      100.0%; Score 50; DB 4; Length 139;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 111 WLDGVTGS 119

RESULT 9
US-10-258-477-1
; Sequence 1, Application US/10258477
; Publication No. US20040001824A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: CELL GROWTH-INHIBITING AGENT
; FILE REFERENCE: PH-1172-PCT
; CURRENT APPLICATION NUMBER: US/10/258,477
; CURRENT FILING DATE: 2003-02-25
; PRIOR APPLICATION NUMBER: JP2000-131793
; PRIOR FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: JP2000-173834
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 139
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-258-477-1

Query Match      100.0%; Score 50; DB 4; Length 139;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 111 WLDGVTGS 119

RESULT 10
US-10-398-449-33
; Sequence 33, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Holick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: PCT/US01/31082
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: US/10/398,449
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 33
; LENGTH: 139
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hpthrp (1-139)
US-10-398-449-33

Query Match      100.0%; Score 50; DB 4; Length 139;
Best Local Similarity 100.0%; Pred. No. 0.46;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
Db 111 WLDGVTGS 119

RESULT 11
US-10-344-279-2
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; Sequence 2, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISYA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-2

Query Match      100.0%; Score 50; DB 4; Length 141;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGVTGS 9
Db      111 WLDGVTGS 119

RESULT 12
US-10-258-477-2
; Sequence 2, Application US/10258477
; Publication No. US20040001824A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: CELL GROWTH-INHIBITING AGENT
; FILE REFERENCE: PH-1172-PCT
; CURRENT APPLICATION NUMBER: US/10/258,477
; CURRENT FILING DATE: 2003-02-25
; PRIOR APPLICATION NUMBER: JP2000-131793
; PRIOR FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: JP2000-173834
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-258-477-2

Query Match      100.0%; Score 50; DB 4; Length 141;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGVTGS 9
Db      111 WLDGVTGS 119

RESULT 13
US-10-398-449-32
; Sequence 32, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Holick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06

; Sequence 2, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISYA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 173
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-3

Query Match      100.0%; Score 50; DB 4; Length 173;
Best Local Similarity 100.0%; Pred. No. 0.58;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGVTGS 9
Db      111 WLDGVTGS 119

RESULT 14
US-10-691-125-1
; Sequence 1, Application US/10691125
; Publication No. US20050033023A1
; GENERAL INFORMATION:
; APPLICANT: Corraale, Pierpaolo
; APPLICANT: Cusi, Maria Grazia
; APPLICANT: Francini, Guido
; TITLE OF INVENTION: PTH-RP RELATED PEPTIDE CANCER THERAPEUTICS
; FILE REFERENCE: 126442-100004US
; CURRENT APPLICATION NUMBER: US/10/691,125
; CURRENT FILING DATE: 2003-10-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MISC FEATURE
; OTHER INFORMATION: Human PTH-rp amino acid sequence
US-10-691-125-1

Query Match      100.0%; Score 50; DB 5; Length 141;
Best Local Similarity 100.0%; Pred. No. 0.47;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGVTGS 9
Db      111 WLDGVTGS 119

RESULT 15
US-10-344-279-3
; Sequence 3, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISYA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344,279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 173
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-3

Query Match      100.0%; Score 50; DB 4; Length 173;
Best Local Similarity 100.0%; Pred. No. 0.58;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLD SGVTGS 9

Db 111 WLD SGVTGS 119

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Job time : 20.0225 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:36:21 ; Search time 0.758427 seconds
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Title: US-10-691-125-4
Perfect score: 50
Sequence: 1 WLDGSGVTGS 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 26661 seqs, 4788334 residues

Total number of hits satisfying chosen parameters: 26661

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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8: /cgn2_6/ptodata/1/pubpaa/US60 NEW PUB pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	50	100.0	23	7	US-11-058-384-6
2	50	100.0	24	7	US-11-058-384-7
3	50	100.0	33	7	US-11-058-384-4
4	50	100.0	33	7	US-11-058-384-10
5	50	100.0	33	7	US-11-058-384-11
6	50	100.0	33	7	US-11-058-384-12
7	50	100.0	33	7	US-11-058-384-14
8	50	100.0	175	7	US-11-058-384-2
9	50	100.0	177	6	US-10-623-155-165
10	50	100.0	177	6	US-10-623-155-166
11	47	94.0	33	7	US-11-058-384-8
12	47	94.0	33	7	US-11-058-384-9
13	35	70.0	537	7	US-11-109-156-28
14	35	70.0	837	6	US-10-467-657-1464
15	33	66.0	561	6	US-10-467-657-624
16	33	66.0	686	7	US-11-065-943-52
17	32	64.0	390	6	US-10-467-657-4288
18	32	64.0	409	6	US-10-467-657-5732
19	32	64.0	409	6	US-10-467-657-7450
20	32	64.0	446	6	US-10-467-657-6594
21	32	64.0	675	6	US-10-467-657-3802
22	32	64.0	705	7	US-11-102-240-162
23	31	62.0	159	7	US-11-174-150-31
24	31	62.0	209	6	US-10-821-234-996
25	31	62.0	334	7	US-11-055-822-24

Sequence 126, App
Sequence 40, Appl
Sequence 50, Appl
Sequence 54, Appl
Sequence 58, Appl
Sequence 42, Appl
Sequence 48, Appl
Sequence 52, Appl
Sequence 56, Appl
Sequence 44, Appl
Sequence 139, App
Sequence 46, Appl
Sequence 218, App
Sequence 1068, App
Sequence 442, App
Sequence 1636, App
Sequence 720, App
Sequence 16, Appl
Sequence 115, Appl

26 31 62.0 451 6 US-10-131-826A-126
27 31 62.0 1127 7 US-11-077-550-40
28 31 62.0 1127 7 US-11-077-550-50
29 31 62.0 1127 7 US-11-077-550-54
30 31 62.0 1127 7 US-11-077-550-58
31 31 62.0 1129 7 US-11-077-550-42
32 31 62.0 1129 7 US-11-077-550-48
33 31 62.0 1129 7 US-11-077-550-52
34 31 62.0 1129 7 US-11-077-550-56
35 31 62.0 1130 7 US-11-077-550-44
36 31 62.0 1130 7 US-11-077-550-139
37 31 62.0 1132 7 US-11-077-550-46
38 31 62.0 1432 6 US-10-510-386-218
39 31 62.0 5179 7 US-11-108-172-1068
40 30 60.0 117 6 US-10-131-826A-442
41 30 60.0 187 6 US-10-467-657-1636
42 30 60.0 257 6 US-10-467-657-720
43 30 60.0 273 7 US-11-113-424-16
44 30 60.0 273 7 US-11-113-424-18
45 30 60.0 404 7 US-11-069-642-115

ALIGNMENTS

RESULT 1

US-11-058-384-6
; Sequence 6, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-11-058-384-6

Query Match 100.0%; Score 50; DB 7; Length 23;
Best Local Similarity 100.0%; Pred. No. 0.001;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGSGVTGS 9
Db 5 WLDGSGVTGS 13

RESULT 2

US-11-058-384-7
; Sequence 7, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14

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; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 7
; LENGTH: 24
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-7

Query Match      100.0%; Score 50; DB 7; Length 24;
Best Local Similarity 100.0%; Pred. No. 0.001;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLD SGVTGS 9
   |||||
Db 5 WLD SGVTGS 13

RESULT 3
US-11-058-384-4
; Sequence 4, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 4
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-4

Query Match      100.0%; Score 50; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLD SGVTGS 9
   |||||
Db 5 WLD SGVTGS 13

RESULT 4
US-11-058-384-10
; Sequence 10, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 10
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-10

Query Match      100.0%; Score 50; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLD SGVTGS 9
   |||||
Db 5 WLD SGVTGS 13

RESULT 5
US-11-058-384-11
; Sequence 11, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 11
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-11

Query Match      100.0%; Score 50; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLD SGVTGS 9
   |||||
Db 5 WLD SGVTGS 13

RESULT 6
US-11-058-384-12
; Sequence 12, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-12

Query Match      100.0%; Score 50; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLD SGVTGS 9
   |||||
Db 5 WLD SGVTGS 13

RESULT 7
US-11-058-384-14
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; Sequence 14, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-P-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; PRIOR FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 14
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-14

Query Match      100.0%; Score 50; DB 7; Length 33;
Best Local Similarity 100.0%; Pred. No. 0.0014;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGSGVTGS 9
Db      5 WLDGSGVTGS 13

RESULT 8
US-11-058-384-2
; Sequence 2, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-P-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 2
; LENGTH: 175
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-2

Query Match      100.0%; Score 50; DB 7; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.0072;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGSGVTGS 9
Db      147 WLDGSGVTGS 155

RESULT 9
US-10-623-155-165
; Sequence 165, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-165

Query Match      100.0%; Score 50; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.0072;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGSGVTGS 9
Db      147 WLDGSGVTGS 155

RESULT 10
US-10-623-155-166
; Sequence 166, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-166

Query Match      100.0%; Score 50; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.0072;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 WLDGSGVTGS 9
Db      147 WLDGSGVTGS 155

RESULT 11
US-11-058-384-8
; Sequence 8, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-P-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 8
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-8
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Query Match      94.0%; Score 47; DB 7; Length 33;
Best Local Similarity 88.9%; Pred. No. 0.005;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
   |||||
Db 5 WLDGVTGA 13

RESULT 12
US-11-058-384-9
; Sequence 9, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESH, Nathalie
; TITLE OF INVENTION: THERP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 9
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-9

Query Match      94.0%; Score 47; DB 7; Length 33;
Best Local Similarity 88.9%; Pred. No. 0.005;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
   |||||
Db 5 WLDGVTGA 13

RESULT 13
US-11-109-156-28
; Sequence 28, Application US/11109156
; Publication No. US20050250144A1
; GENERAL INFORMATION:
; APPLICANT: Toshio Ota
; APPLICANT: Takao Isogai
; APPLICANT: Tetsuo Nishikawa
; APPLICANT: Koji Hayaashi
; APPLICANT: Kaoru Otsuka
; APPLICANT: Jun-Ichi Yamamoto
; APPLICANT: Shizuko Ishii
; APPLICANT: Tomoyasu Sugiyama
; APPLICANT: Ai Wakamatsu
; APPLICANT: Keiichi Nagai
; APPLICANT: Tetsuji Otsuki
; APPLICANT: Shin-Ichi Furuhashi
; APPLICANT: Chiaki Senoo
; APPLICANT: Jun-Ichi Nezu
; TITLE OF INVENTION: NOVEL GENES ENCODING PROTEIN KINASE/PROTEIN
; FILE REFERENCE: PHOSPHATASE
; FILE REFERENCE: 06501-099002
; CURRENT APPLICATION NUMBER: US/11/109,156
; CURRENT FILING DATE: 2005-04-19
; PRIOR APPLICATION NUMBER: US/10/060,065
; PRIOR FILING DATE: 2002-01-29
; PRIOR APPLICATION NUMBER: PCT/JP00/05061
; PRIOR FILING DATE: 2000-07-28
; PRIOR APPLICATION NUMBER: US 60/159,590
; PRIOR FILING DATE: 1999-10-18
; PRIOR APPLICATION NUMBER: US 60/183,322
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; PRIOR FILING DATE: 2000-02-17
; PRIOR APPLICATION NUMBER: JP 11-248036
; PRIOR FILING DATE: 1999-07-29
; PRIOR APPLICATION NUMBER: JP 2000-118776
; PRIOR FILING DATE: 2000-01-11
; PRIOR APPLICATION NUMBER: JP 2000-183767
; PRIOR FILING DATE: 2000-05-02
; PRIOR APPLICATION NUMBER: JP 2000-241899
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
; LENGTH: 537
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-109-156-28

Query Match      70.0%; Score 35; DB 7; Length 537;
Best Local Similarity 75.0%; Pred. No. 11;
Matches 6; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1 WLDGVTG 8
   |||||
Db 107 WLDSGTWG 114

RESULT 14
US-10-467-657-1464
; Sequence 1464, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASIGNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 1464
; LENGTH: 837
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-1464

Query Match      70.0%; Score 35; DB 6; Length 837;
Best Local Similarity 66.7%; Pred. No. 18;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 WLDGVTGS 9
   |||||
Db 634 WDSGVEGA 642

RESULT 15
US-10-467-657-624
; Sequence 624, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASIGNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
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; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 624
; LENGTH: 561
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-624
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Query Match      66.0%; Score 33; DB 6; Length 561;
Best Local Similarity 53.8%; Pred. No. 28;
Matches 7; Conservative 2; Mismatches 0; Indels 4; Gaps 1;
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Qy      1 WLDGCV---TGS 9
      |||:|:|:|
Db      234 WLESGINITYTGS 246
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Job time : 1.95843 secs
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:35:41 ; Search time 22.2472 Seconds
(without alignments)
187.812 Million cell updates/sec

Title: US-10-691-125-3
Perfect score: 55
Sequence: 1 FLHLLIAEIH 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA Main:
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3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
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5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	55	100.0	10	5	US-10-691-125-3
2	55	100.0	17	5	US-10-428-377-14
3	55	100.0	21	5	US-10-428-377-10
4	55	100.0	27	3	US-09-843-221A-73
5	55	100.0	27	3	US-09-843-221A-74
6	55	100.0	27	3	US-09-999-608-73
7	55	100.0	27	3	US-09-999-608-74
8	55	100.0	27	4	US-10-839-037-73
9	55	100.0	27	4	US-10-839-037-74
10	55	100.0	28	3	US-09-843-221A-68
11	55	100.0	28	3	US-09-843-221A-69
12	55	100.0	28	3	US-09-843-221A-70
13	55	100.0	28	3	US-09-843-221A-71
14	55	100.0	28	3	US-09-843-221A-72
15	55	100.0	28	3	US-09-843-221A-75
16	55	100.0	28	3	US-09-843-221A-169
17	55	100.0	28	3	US-09-999-608-68
18	55	100.0	28	3	US-09-999-608-69
19	55	100.0	28	3	US-09-999-608-70
20	55	100.0	28	3	US-09-999-608-71
21	55	100.0	28	3	US-09-999-608-72
22	55	100.0	28	3	US-09-999-608-75
23	55	100.0	28	3	US-09-999-608-167
24	55	100.0	28	4	US-10-097-079-77
25	55	100.0	28	4	US-10-839-037-68
26	55	100.0	28	4	US-10-839-037-69
27	55	100.0	28	4	US-10-839-037-70

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28 4 US-10-839-037-71
29 4 US-10-839-037-72
30 4 US-10-839-037-75
31 4 US-10-839-037-169
32 5 US-10-428-377-2
33 5 US-10-428-377-5
34 5 US-10-066-697-300
35 5 US-10-398-449-36
36 5 US-10-398-449-40
37 5 US-10-398-449-13
38 5 US-10-398-449-38
39 5 US-10-066-697-67
40 5 US-10-839-037-67
41 5 US-10-066-697-296
42 5 US-10-169-786-5
43 5 US-09-423-800-75
44 5 US-09-843-221A-63
45 5 US-09-843-221A-63

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ALIGNMENTS

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RESULT 1
US-10-691-125-3
; Sequence 3, Application US/10691125
; Publication No. US20050033023A1
; GENERAL INFORMATION:
; APPLICANT: Corrales, Pierpaolo
; APPLICANT: Cusi, Maria Grazia
; TITLE OF INVENTION: PTH-RP RELATED PEPTIDE CANCER THERAPEUTICS
; FILE REFERENCE: 126442-100004US
; CURRENT APPLICATION NUMBER: US/10/691,125
; CURRENT FILING DATE: 2003-10-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: Patent in version 3.2
; SEQ ID NO 3
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MISC FEATURE
; OTHER INFORMATION: PTR-2
US-10-691-125-3

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Query Match 100.0%; Score 55; DB 5; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.012;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1 FLHLLIAEIH 10
Db 1 FLHLLIAEIH 10

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RESULT 2
US-10-428-377-14
; Sequence 14, Application US/10428377
; Publication No. US20040220094A1
; GENERAL INFORMATION:
; APPLICANT: Skinner, Keith
; TITLE OF INVENTION: INVERSE AGONIST AND AGONIST PEPTIDES
; FILE REFERENCE: 549042000100
; CURRENT APPLICATION NUMBER: US/10/428,377
; CURRENT FILING DATE: 2003-05-01
; NUMBER OF SEQ ID NOS: 48
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 17
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-428-377-14

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Sequence 71, Appl
Sequence 72, Appl
Sequence 75, Appl
Sequence 169, App
Sequence 2, Appli
Sequence 5, Appli
Sequence 30, App
Sequence 36, Appl
Sequence 40, Appl
Sequence 13, Appl
Sequence 38, Appl
Sequence 67, Appl
Sequence 67, Appl
Sequence 296, App
Sequence 5, Appli
Sequence 75, Appl
Sequence 63, Appl

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Query Match 100.0%; Score 55; DB 5; Length 17;
Best Local Similarity 100.0%; Pred. No. 0.02; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0;

Qy 1 FLHHLIAEIH 10
| | | | | | | |
Db 6 FLHHLIAEIH 15

RESULT 3
US-10-428-377-10
; Sequence 10, Application US/10428377
; Publication No. US20040220094A1
; GENERAL INFORMATION:
; APPLICANT: Skinner, Keith
; TITLE OF INVENTION: INVERSE AGONIST AND AGONIST PEPTIDES
; TITLE OF INVENTION: THAT STIMULATE/INHIBIT HAIR GROWTH
; FILE REFERENCE: 54904200100
; CURRENT APPLICATION NUMBER: US/10/428,377
; CURRENT FILING DATE: 2003-05-01
; NUMBER OF SEQ ID NOS: 48
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 21
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-428-377-10

Query Match 100.0%; Score 55; DB 5; Length 21;
Best Local Similarity 100.0%; Pred. No. 0.025; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0;

Qy 1 FLHHLIAEIH 10
| | | | | | | |
Db 10 FLHHLIAEIH 19

RESULT 4
US-09-843-221A-73
; Sequence 73, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 73
; LENGTH: 27
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrp
; NAME/KEY: misc feature
; LOCATION: (5)-(5)
; OTHER INFORMATION: D amino acid
US-09-843-221A-73

Query Match 100.0%; Score 55; DB 3; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.033; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0;

Qy 1 FLHHLIAEIH 10
| | | | | | | |
Db 16 FLHHLIAEIH 25

RESULT 5
US-09-843-221A-74
; Sequence 74, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 74
; LENGTH: 27
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrp
; NAME/KEY: misc feature
; LOCATION: (5)-(5)
; OTHER INFORMATION: D amino acid
US-09-843-221A-74

Query Match 100.0%; Score 55; DB 3; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.033; Mismatches 0; Indels 0; Gaps 0;
Matches 10; Conservative 0;

Qy 1 FLHHLIAEIH 10
| | | | | | | |
Db 16 FLHHLIAEIH 25

RESULT 6
US-09-999-608-73
; Sequence 73, Application US/09999608
; Publication No. US20050124537A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: GEGG, COLIN V.
; APPLICANT: JAROSINSKI, MARK ANTHONY
; APPLICANT: KINSTLER, OLAF BORIS
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID
; TITLE OF INVENTION: HORMONE-RELATED PROTEIN
; FILE REFERENCE: A-665C
; CURRENT APPLICATION NUMBER: US/09/999,608
; CURRENT FILING DATE: 2002-03-11
; PRIOR APPLICATION NUMBER: US 09/843,221
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 73
; LENGTH: 27

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (5)..(5)
; OTHER INFORMATION: D amino acid
US-09-999-608-73

Query Match 100.0%; Score 55; DB 3; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.033;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
|||
Db 16 FLHLLIAEIH 25

RESULT 7
US-09-999-608-74
; Sequence 74, Application US/09999608
; Publication No. US20050124537A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: JEGG, COLIN V.
; APPLICANT: JAROSINSKI, MARK ANTHONY
; APPLICANT: KINSTLER, OLAF BORIS
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID
; FILE REFERENCE: A-665C
; CURRENT APPLICATION NUMBER: US/09/999,608
; CURRENT FILING DATE: 2002-03-11
; PRIOR APPLICATION NUMBER: US 09/843,221
; PRIOR FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 74
; LENGTH: 27

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (5)..(5)
; OTHER INFORMATION: D amino acid
US-09-999-608-74

Query Match 100.0%; Score 55; DB 3; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.033;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
|||
Db 16 FLHLLIAEIH 25

RESULT 8
US-10-839-037-73
; Sequence 73, Application US/10839037
; Publication No. US20040214996A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/10/839,037
; CURRENT FILING DATE: 2004-05-04
; PRIOR APPLICATION NUMBER: US/09/843,221A
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 73
; LENGTH: 27
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (5)..(5)
; OTHER INFORMATION: D amino acid
US-10-839-037-73

Query Match 100.0%; Score 55; DB 4; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.033;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHLLIAEIH 10
|||
Db 16 FLHLLIAEIH 25

RESULT 9
US-10-839-037-74
; Sequence 74, Application US/10839037
; Publication No. US20040214996A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/10/839,037
; CURRENT FILING DATE: 2004-05-04
; PRIOR APPLICATION NUMBER: US/09/843,221A
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 74
; LENGTH: 27
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (5)..(5)
; OTHER INFORMATION: D amino acid
US-10-839-037-74

Query Match 100.0%; Score 55; DB 4; Length 27;
Best Local Similarity 100.0%; Pred. No. 0.033;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 FLHHLIAEIH 10
      |||||
Db     16 FLHHLIAEIH 25

RESULT 10
US-09-843-221A-68
; Sequence 68, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 68
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-843-221A-68

Query Match      100.0%; Score 55; DB 3; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.034;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 FLHHLIAEIH 10
      |||||
Db     17 FLHHLIAEIH 26

RESULT 11
US-09-843-221A-69
; Sequence 69, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 69
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-69

Query Match      100.0%; Score 55; DB 3; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.034;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 FLHHLIAEIH 10
      |||||
Db     17 FLHHLIAEIH 26

RESULT 12
US-09-843-221A-70
; Sequence 70, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 70
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
US-09-843-221A-70

Query Match      100.0%; Score 55; DB 3; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.034;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 FLHHLIAEIH 10
      |||||
Db     17 FLHHLIAEIH 26

RESULT 13
US-09-843-221A-71
; Sequence 71, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 71
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
; NAME/KEY: misc_feature
US-09-843-221A-71
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```
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 FLHHLIAEIH 10
      |||||
Db     17 FLHHLIAEIH 26

RESULT 12
US-09-843-221A-70
; Sequence 70, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 70
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified PTHrP
US-09-843-221A-70

Query Match      100.0%; Score 55; DB 3; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.034;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 FLHHLIAEIH 10
      |||||
Db     17 FLHHLIAEIH 26

RESULT 13
US-09-843-221A-71
; Sequence 71, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 71
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
; NAME/KEY: misc_feature
US-09-843-221A-71
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; LOCATION: (6)..(6)
; OTHER INFORMATION: D amino acid
US-09-843-221A-71

Query Match 100.0%; Score 55; DB 3; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.034;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 14

US-09-843-221A-72

; Sequence 72, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENUIK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; TITLE OF INVENTION: RELATED PROTEIN

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843,221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 72

; LENGTH: 28

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: modified PTHR

; NAME/KEY: misc feature

; LOCATION: (6)..(6)

; OTHER INFORMATION: D amino acid

US-09-843-221A-72

Query Match 100.0%; Score 55; DB 3; Length 28;

Best Local Similarity 100.0%; Pred. No. 0.034;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

RESULT 15

US-09-843-221A-75

; Sequence 75, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENUIK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; TITLE OF INVENTION: RELATED PROTEIN

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843,221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 75

; LENGTH: 28

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: modified human PTHR

; NAME/KEY: misc feature

; LOCATION: (6)..(6)

; OTHER INFORMATION: D amino acid

US-09-843-221A-75

Query Match 100.0%; Score 55; DB 3; Length 28;

Best Local Similarity 100.0%; Pred. No. 0.034;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 17 FLHHLIAEIH 26

Search completed: December 2, 2005, 23:10:42

Job time : 23.2472 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:36:21 ; Search time 0.842697 Seconds
(without alignments)
56.822 Million cell updates/sec

Title: US-10-691-125-3

Perfect score: 55

Sequence: 1 FLHLIAEIH 10

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 26661 seqs, 4788334 residues

Total number of hits satisfying chosen parameters: 26661

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA New:

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2: /cgn2_6/ptodata/1/pubaa/US06 NEW PUB.pap.*
3: /cgn2_6/ptodata/1/pubaa/US07 NEW PUB.pap.*
4: /cgn2_6/ptodata/1/pubaa/US08 NEW PUB.pap.*
5: /cgn2_6/ptodata/1/pubaa/PCT NEW PUB.pap.*
6: /cgn2_6/ptodata/1/pubaa/US10 NEW PUB.pap.*
7: /cgn2_6/ptodata/1/pubaa/US11 NEW PUB.pap.*
8: /cgn2_6/ptodata/1/pubaa/US60 NEW PUB.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	55	100.0	175	US-11-058-384-2	Sequence 2, Appli
2	55	100.0	177	US-10-623-155-165	Sequence 165, App
3	55	100.0	177	US-10-623-155-166	Sequence 166, App
4	36	65.5	447	US-10-858-730-220	Sequence 220, App
5	34	61.8	265	US-10-467-657-6590	Sequence 6590, Ap
6	34	61.8	265	US-10-467-657-7654	Sequence 7654, Ap
7	34	61.8	468	US-10-957-569-28	Sequence 28, Appl
8	33	60.0	292	US-10-793-626-2636	Sequence 2636, Ap
9	33	60.0	490	US-10-507-106-2	Sequence 2, Appli
10	33	60.0	524	US-10-507-106-4	Sequence 4, Appli
11	33	60.0	664	US-10-793-626-346	Sequence 346, App
12	33	60.0	1141	US-10-601-368-6	Sequence 6, Appli
13	33	60.0	1141	US-10-601-368-24	Sequence 24, Appl
14	33	60.0	1166	US-10-601-368-4	Sequence 4, Appli
15	33	60.0	1166	US-10-601-368-22	Sequence 22, Appl
16	33	60.0	1188	US-10-601-368-3	Sequence 3, Appli
17	33	60.0	1188	US-10-601-368-21	Sequence 21, Appl
18	31	56.4	133	US-10-821-234-967	Sequence 967, App
19	31	56.4	341	US-11-055-822-1054	Sequence 1054, Ap
20	31	56.4	691	US-10-467-657-7170	Sequence 7170, Ap
21	31	56.4	871	US-10-467-657-4588	Sequence 4588, Ap
22	31	56.4	871	US-10-467-657-7182	Sequence 7182, Ap
23	30.5	55.5	618	US-10-858-730-74	Sequence 74, Appl
24	30	54.5	232	US-10-467-962B-87	Sequence 87, Appl
25	30	54.5	254	US-10-793-626-902	Sequence 902, App

ALIGNMENTS

RESULT 1

US-11-058-384-2

; Sequence 2, Application US/11058384

; Publication No. US20050261183A1

; GENERAL INFORMATION:

; APPLICANT: STEWART, Andrew F.

; APPLICANT: FIASCHI-TAESCH, Nathalie

; TITLE OF INVENTION: PTHP-Derived Modulators of Smooth Muscle Proliferation

; FILE REFERENCE: VAS-001US

; CURRENT APPLICATION NUMBER: US/11/058,384

; CURRENT FILING DATE: 2005-02-15

; PRIOR APPLICATION NUMBER: PCT/US2003/025473

; PRIOR FILING DATE: 2003-08-13

; PRIOR APPLICATION NUMBER: 60/403,805

; PRIOR FILING DATE: 2002-08-15

; NUMBER OF SEQ ID NOS: 14

; SOFTWARE: Patent in version 3.3

; SEQ ID NO 2

; LENGTH: 175

; TYPE: PRT

; ORGANISM: Homo sapiens

; US-11-058-384-2

Query Match 100.0%; Score 55; DB 7; Length 175;

Best Local Similarity 100.0%; Pred. No. 0.0015;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 FLHLIAEIH 10

DB 59 FLHLIAEIH 68

RESULT 2

US-10-623-155-165

; Sequence 165, Application US/10623155

; Publication No. US20050261166A1

; GENERAL INFORMATION:

; APPLICANT: Wang, Tongtong

; APPLICANT: Peckham, David W.

; APPLICANT: Retter, Marc W.

; APPLICANT: Fauger, Gary R.

; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY

; FILE REFERENCE: 210121.455C20

; CURRENT APPLICATION NUMBER: US/10/623,155

; CURRENT FILING DATE: 2003-07-17

; NUMBER OF SEQ ID NOS: 560

; SOFTWARE: FastSeq for Windows Version 4.0

Sequence 320, App
Sequence 9211, App
Sequence 232, App
Sequence 6, Appli
Sequence 8, Appli
Sequence 244, App
Sequence 14, Appli
Sequence 7930, Ap
Sequence 1002, Ap
Sequence 2112, Ap
Sequence 2392, Ap
Sequence 5544, Ap
Sequence 86, Appli
Sequence 90, Appli
Sequence 94, Appli
Sequence 98, Appli
Sequence 124, App
Sequence 40, Appli
Sequence 88, Appli
Sequence 92, Appli

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; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-165

Query Match      100.0%; Score 55; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 59 FLHHLIAEIH 68

RESULT 3
US-10-623-155-166
; Sequence 166, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623.155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-166

Query Match      100.0%; Score 55; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.0015;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 10
Db 59 FLHHLIAEIH 68

RESULT 4
US-10-858-730-220
; Sequence 220, Application US/10858730
; Publication No. US20050255568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Driggers, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
; APPLICANT: Yorgev, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE REFERENCE: 14184-030001
; CURRENT APPLICATION NUMBER: US/10/858.730
; CURRENT FILING DATE: 2004-06-01
; PRIOR APPLICATION NUMBER: US 60/475,000
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/551,860
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 220
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; LENGTH: 447
; TYPE: PRT
; ORGANISM: Escherichia coli
US-10-858-730-220

Query Match      65.5%; Score 36; DB 6; Length 447;
Best Local Similarity 55.6%; Pred. No. 8.8;
Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 2 LHHLIAEIH 10
Db 402 LHHMLDIH 410

RESULT 5
US-10-467-657-6590
; Sequence 6590, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASIGNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 6590
; LENGTH: 265
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-6590

Query Match      61.8%; Score 34; DB 6; Length 265;
Best Local Similarity 55.6%; Pred. No. 11;
Matches 5; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 9
Db 197 FLHLMVRNI 205

RESULT 6
US-10-467-657-7654
; Sequence 7654, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASIGNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 7654
; LENGTH: 265
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-7654

Query Match      61.8%; Score 34; DB 6; Length 265;
Best Local Similarity 55.6%; Pred. No. 11;
Matches 5; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 FLHHLIAEIH 9
Db 197 FLHLMVRNI 205
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Matches 5; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 FLHHLIAEI 9
|||||:|

Db 197 FLHHWVRNI 205

RESULT 7
US-10-957-569-28
; Sequence 28, Application US/10957569
; Publication No. US20050246785A1
; GENERAL INFORMATION:
; APPLICANT: COOK, Zhihong et al.
; TITLE OF INVENTION: PROMOTER, PROMOTER CONTROL ELEMENTS, AND COMBINATIONS, AND USES THEREOF
; FILE REFERENCE: 2750-1577PUS3
; CURRENT APPLICATION NUMBER: US/10/957,569
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 10/950,321
; PRIOR FILING DATE: 2004-09-23
; NUMBER OF SEQ ID NOS: 64
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 28
; LENGTH: 468
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-10-957-569-28

Query Match 61.8%; Score 34; DB 6; Length 468;
Best Local Similarity 71.4%; Pred. No. 21;
Matches 5; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLIA 7
|||||:|

Db 428 FLHHLVS 434

RESULT 8
US-10-793-626-2636
; Sequence 2636, Application US/10793626
; Publication No. US20050255478A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO 2636
; LENGTH: 292
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
US-10-793-626-2636

Query Match 60.0%; Score 33; DB 6; Length 292;
Best Local Similarity 75.0%; Pred. No. 19;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 LHHHLIAEI 9
|||||:|

Db 45 LHHLWWEI 52

RESULT 9
US-10-507-106-2
; Sequence 2, Application US/10507106
; Publication No. US20050246797A1

; GENERAL INFORMATION:
; APPLICANT: Japan Science and Technology Agency
; TITLE OF INVENTION: Gene participating in the synthesis of brassinosteroid
; FILE REFERENCE: 26352U (PS03-311PCT)
; CURRENT APPLICATION NUMBER: US/10/507,106
; CURRENT FILING DATE: 2004-09-10
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 490
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-10-507-106-2

Query Match 60.0%; Score 33; DB 6; Length 490;
Best Local Similarity 83.3%; Pred. No. 33;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLI 6
|||||:

Db 454 FLHHLV 459

RESULT 10
US-10-507-106-4
; Sequence 4, Application US/10507106
; Publication No. US20050246797A1
; GENERAL INFORMATION:
; APPLICANT: Japan Science and Technology Agency
; TITLE OF INVENTION: Gene participating in the synthesis of brassinosteroid
; FILE REFERENCE: 26352U (PS03-311PCT)
; CURRENT APPLICATION NUMBER: US/10/507,106
; CURRENT FILING DATE: 2004-09-10
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 524
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-10-507-106-4

Query Match 60.0%; Score 33; DB 6; Length 524;
Best Local Similarity 83.3%; Pred. No. 35;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FLHHLI 6
|||||:

Db 476 FLHHLV 481

RESULT 11
US-10-793-626-346
; Sequence 346, Application US/10793626
; Publication No. US20050255478A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO 346
; LENGTH: 664
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
US-10-793-626-346

Query Match 60.0%; Score 33; DB 6; Length 664;
Best Local Similarity 62.5%; Pred. No. 45;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 2 LHLHIAEI 9
Db 37 LHLVYEV 44
|||||:

RESULT 12
US-10-601-368-6
; Sequence 6, Application US/10601368
; Publication No. US20050260702A1
; GENERAL INFORMATION:
; APPLICANT: Pan, Yang
; APPLICANT: Lora, Jose M.
; TITLE OF INVENTION: NOVEL INTEGRIN ALPHA SUBUNIT AND USES THEREOF
; FILE REFERENCE: 07334-275001
; CURRENT APPLICATION NUMBER: US/10/601,368
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: US/09/561,263A
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: US 09/322,790
; PRIOR FILING DATE: 1999-05-28
; NUMBER OF SEQ ID NOS: 40
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 6
; LENGTH: 1141
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SIGNAL
; LOCATION: (1)...(22)
US-10-601-368-6

Query Match 60.0%; Score 33; DB 6; Length 1141;
Best Local Similarity 66.7%; Pred. No. 81;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 FLHHLIAEI 9
Db 919 FLHHLIEL 927
|||||:

RESULT 13
US-10-601-368-24
; Sequence 24, Application US/10601368
; Publication No. US20050260702A1
; GENERAL INFORMATION:
; APPLICANT: Pan, Yang
; APPLICANT: Lora, Jose M.
; TITLE OF INVENTION: NOVEL INTEGRIN ALPHA SUBUNIT AND USES THEREOF
; FILE REFERENCE: 07334-275001
; CURRENT APPLICATION NUMBER: US/10/601,368
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: US/09/561,263A
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: US 09/322,790
; PRIOR FILING DATE: 1999-05-28
; NUMBER OF SEQ ID NOS: 40
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 24
; LENGTH: 1141
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-601-368-24

Query Match 60.0%; Score 33; DB 6; Length 1141;
Best Local Similarity 70.0%; Pred. No. 81;
Matches 7; Conservative 1; Mismatches 0; Indels 2; Gaps 1;

QY 1 FLHHLIAEIH 10
|||||:

Db 919 FLHHL--QIH 926

RESULT 14
US-10-601-368-4
; Sequence 4, Application US/10601368
; Publication No. US20050260702A1
; GENERAL INFORMATION:
; APPLICANT: Pan, Yang
; APPLICANT: Lora, Jose M.
; TITLE OF INVENTION: NOVEL INTEGRIN ALPHA SUBUNIT AND USES THEREOF
; FILE REFERENCE: 07334-275001
; CURRENT APPLICATION NUMBER: US/10/601,368
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: US/09/561,263A
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: US 09/322,790
; PRIOR FILING DATE: 1999-05-28
; NUMBER OF SEQ ID NOS: 40
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 4
; LENGTH: 1166
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-368-4

Query Match 60.0%; Score 33; DB 6; Length 1166;
Best Local Similarity 66.7%; Pred. No. 83;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 FLHHLIAEI 9
Db 897 FLHHLIEL 905
|||||:

RESULT 15
US-10-601-368-22
; Sequence 22, Application US/10601368
; Publication No. US20050260702A1
; GENERAL INFORMATION:
; APPLICANT: Pan, Yang
; APPLICANT: Lora, Jose M.
; TITLE OF INVENTION: NOVEL INTEGRIN ALPHA SUBUNIT AND USES THEREOF
; FILE REFERENCE: 07334-275001
; CURRENT APPLICATION NUMBER: US/10/601,368
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: US/09/561,263A
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: US 09/322,790
; PRIOR FILING DATE: 1999-05-28
; NUMBER OF SEQ ID NOS: 40
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 22
; LENGTH: 1166
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-601-368-22

Query Match 60.0%; Score 33; DB 6; Length 1166;
Best Local Similarity 70.0%; Pred. No. 83;
Matches 7; Conservative 1; Mismatches 0; Indels 2; Gaps 1;

QY 1 FLHHLIAEIH 10
Db 897 FLHHL--QIH 904
|||||:

Search completed: December 2, 2005, 23:11:03
Job time : 1.0427 secs

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:35:41 ; Search time 20.0225 Seconds
(without alignments)
187.812 Million cell updates/sec

Title: US-10-691-125-2

Perfect score: 46

Sequence: 1 AVSEHQQLLH 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published Applications AA_Main:

- 1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
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- 6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query Score	Match	Length	DB ID	Description
1	46	100.0	9	4	US-10-192-673-8
2	46	100.0	9	5	Sequence 8, Appli
3	46	100.0	14	4	US-10-691-125-2
4	46	100.0	29	3	US-09-843-221A-152
5	46	100.0	29	3	US-09-999-608-152
6	46	100.0	29	4	US-10-839-037-152
7	46	100.0	30	3	US-09-843-221A-176
8	46	100.0	30	3	US-09-843-221A-79
9	46	100.0	30	3	US-09-843-221A-134
10	46	100.0	30	3	US-09-843-221A-135
11	46	100.0	30	3	US-09-843-221A-136
12	46	100.0	30	3	US-09-843-221A-137
13	46	100.0	30	3	US-09-843-221A-138
14	46	100.0	30	3	US-09-843-221A-144
15	46	100.0	30	3	US-09-843-221A-145
16	46	100.0	30	3	US-09-843-221A-147
17	46	100.0	30	3	US-09-843-221A-148
18	46	100.0	30	3	US-09-843-221A-149
19	46	100.0	30	3	US-09-843-221A-151
20	46	100.0	30	3	US-09-843-221A-153
21	46	100.0	30	3	US-09-843-221A-154
22	46	100.0	30	3	US-09-843-221A-155
23	46	100.0	30	3	US-09-843-221A-156
24	46	100.0	30	3	US-09-843-221A-157
25	46	100.0	30	3	US-09-999-608-76
26	46	100.0	30	3	US-09-999-608-79
27	46	100.0	30	3	US-09-999-608-134

Sequence 135, App
Sequence 136, App
Sequence 137, App
Sequence 138, App
Sequence 144, App
Sequence 145, App
Sequence 147, App
Sequence 148, App
Sequence 149, App
Sequence 151, App
Sequence 153, App
Sequence 154, App
Sequence 155, App
Sequence 156, App
Sequence 157, App
Sequence 76, Appl
Sequence 79, Appl
Sequence 134, App

28 46 100.0 30 3 US-09-999-608-135
29 46 100.0 30 3 US-09-999-608-136
30 46 100.0 30 3 US-09-999-608-137
31 46 100.0 30 3 US-09-999-608-138
32 46 100.0 30 3 US-09-999-608-144
33 46 100.0 30 3 US-09-999-608-145
34 46 100.0 30 3 US-09-999-608-147
35 46 100.0 30 3 US-09-999-608-148
36 46 100.0 30 3 US-09-999-608-149
37 46 100.0 30 3 US-09-999-608-151
38 46 100.0 30 3 US-09-999-608-153
39 46 100.0 30 3 US-09-999-608-154
40 46 100.0 30 3 US-09-999-608-155
41 46 100.0 30 3 US-09-999-608-156
42 46 100.0 30 3 US-09-999-608-157
43 46 100.0 30 4 US-10-839-037-76
44 46 100.0 30 4 US-10-839-037-79
45 46 100.0 30 4 US-10-839-037-134

ALIGNMENTS

RESULT 1
US-10-192-673-8
; Sequence 8, Application US/10192673
; Publication No. US20030166838A1
; GENERAL INFORMATION:
; APPLICANT: Gardella, Thomas J.
; APPLICANT: Kronenberg, Henry
; APPLICANT: Potts, John T.
; APPLICANT: Juppner, Harald
; TITLE OF INVENTION: Bioactive Peptides and Peptide Derivatives of Parathyroid Hormone (PTH) and Parathyroid
; TITLE OF INVENTION: Parathyroid Hormone (PTH) and Parathyroid
; TITLE OF INVENTION: Hormone-Related Peptide (PTHrp)
; FILE REFERENCE: 0609.4570002
; CURRENT APPLICATION NUMBER: US/10192,673
; CURRENT FILING DATE: 2002-07-11
; PRIOR APPLICATION NUMBER: U.S. 09/421,379
; PRIOR FILING DATE: 1999-10-20
; PRIOR APPLICATION NUMBER: U.S. 60/105,530
; PRIOR FILING DATE: 1998-10-22
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: peptide
US-10-192-673-8

Query Match 100.0%; Score 46; DB 4; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
| | | | | | | | |
Db 1 AVSEHQQLLH 9

RESULT 2
US-10-691-125-2
; Sequence 2, Application US/10691125
; Publication No. US2005003023A1
; GENERAL INFORMATION:
; APPLICANT: Corrales, Pierpaolo
; APPLICANT: Cusi, Maria Grazia
; APPLICANT: Francini, Guido
; TITLE OF INVENTION: PTH-RP RELATED PEPTIDE CANCER THERAPEUTICS
; FILE REFERENCE: 126442-100004US
; CURRENT APPLICATION NUMBER: US/10/691,125

; CURRENT FILING DATE: 2003-10-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MISC_FEATURE
; OTHER INFORMATION: PTR-1
US-10-691-125-2

Query Match 100.0%; Score 46; DB 5; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.7e+06;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
| | | | | | | | |
Db 1 AVSEHQQLLH 9

RESULT 3

US-10-192-673-4
; Sequence 4, Application US/10192673
; Publication No. US20030166838A1
; GENERAL INFORMATION:
; APPLICANT: Gardella, Thomas J.
; APPLICANT: Kronenberg, Henry
; APPLICANT: Potts, John T.
; APPLICANT: Juppner, Harald
; TITLE OF INVENTION: Bioactive Peptides and Peptide Derivatives of
; TITLE OF INVENTION: Parathyroid Hormone (PTH) and Parathyroid
; TITLE OF INVENTION: Hormone-Related Peptide (PTHrP)
; FILE REFERENCE: 0609.4570002
; CURRENT APPLICATION NUMBER: US/10/192,673
; CURRENT FILING DATE: 2002-07-11
; PRIOR APPLICATION NUMBER: U.S. 09/421,379
; PRIOR FILING DATE: 1999-10-20
; PRIOR APPLICATION NUMBER: U.S. 60/105,530
; PRIOR FILING DATE: 1998-10-22
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 14
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: peptide
US-10-192-673-4

Query Match 100.0%; Score 46; DB 4; Length 14;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
| | | | | | | | |
Db 1 AVSEHQQLLH 9

RESULT 4

US-09-843-221A-152
; Sequence 152, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 152
; LENGTH: 29
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-152

Query Match 100.0%; Score 46; DB 3; Length 29;
Best Local Similarity 100.0%; Pred. No. 0.23;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
| | | | | | | | |
Db 1 AVSEHQQLLH 9

RESULT 5

US-09-999-608-152
; Sequence 152, Application US/09999608
; Publication No. US20050124537A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: GREGG, COLIN V.
; APPLICANT: JAROSINSKI, MARK ANTHONY
; APPLICANT: KINSTLER, OLAF BORIS
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID
; TITLE OF INVENTION: HORMONE-RELATED PROTEIN
; FILE REFERENCE: A-665C
; CURRENT APPLICATION NUMBER: US/09/999,608
; CURRENT FILING DATE: 2002-03-11
; PRIOR APPLICATION NUMBER: US 09/843,221
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 152
; LENGTH: 29
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-999-608-152

Query Match 100.0%; Score 46; DB 3; Length 29;
Best Local Similarity 100.0%; Pred. No. 0.23;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLLH 9
| | | | | | | | |
Db 1 AVSEHQQLLH 9

RESULT 6

US-10-839-037-152
; Sequence 152, Application US/10839037
; Publication No. US20040214996A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA

```
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/10/839,037
; CURRENT FILING DATE: 2004-05-04
; PRIOR FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 152
; LENGTH: 29
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-10-839-037-152

Query Match      100.0%; Score 46; DB 4; Length 29;
Best Local Similarity 100.0%; Pred. No. 0.23;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

RESULT 7
US-09-843-221A-76
; Sequence 76, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 76
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-843-221A-76

Query Match      100.0%; Score 46; DB 3; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

RESULT 8
US-09-843-221A-79
; Sequence 79, Application US/09843221A
; Publication No. US20030039654A1
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; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 79
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
; NAME/KEY: misc:feature
; LOCATION: (12)..(12)
; OTHER INFORMATION: D amino acid
US-09-843-221A-79

Query Match      100.0%; Score 46; DB 3; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

RESULT 9
US-09-843-221A-134
; Sequence 134, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2001-02-06
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-06-28
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 134
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-134

Query Match      100.0%; Score 46; DB 3; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9
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RESULT 10

US-09-843-221A-135

; Sequence 135, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENUK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; FILE REFERENCE: A-665B

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 135

; LENGTH: 30

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: modified human PTHrP

; US-09-843-221A-135

Query Match

100.0%; Score 46; DB 3; Length 30;

Best Local Similarity 100.0%; Pred. No. 0.24; Indels 0; Gaps 0;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9

| | | | |

Db 1 AVSEHQLLH 9

RESULT 11

US-09-843-221A-136

; Sequence 136, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENUK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843, 221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 136

; LENGTH: 30

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: modified human PTHrP

; US-09-843-221A-136

Query Match

100.0%; Score 46; DB 3; Length 30;

Best Local Similarity 100.0%; Pred. No. 0.24; Indels 0; Gaps 0;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9

| | | | |

Db 1 AVSEHQLLH 9

RESULT 12

US-09-843-221A-137

; Sequence 137, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENUK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843, 221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 137

; LENGTH: 30

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: modified human PTHrP

; US-09-843-221A-137

Query Match

100.0%; Score 46; DB 3; Length 30;

Best Local Similarity 100.0%; Pred. No. 0.24; Indels 0; Gaps 0;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9

| | | | |

Db 1 AVSEHQLLH 9

RESULT 13

US-09-843-221A-138

; Sequence 138, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENUK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843, 221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 138

; LENGTH: 30

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: modified human PTHrP

; US-09-843-221A-138

Query Match

100.0%; Score 46; DB 3; Length 30;

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Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

US-09-843-221A-145
Query Match 100.0%; Score 46; DB 3; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

Search completed: December 2, 2005, 23:10:41
Job time : 20.0225 secs

US-09-843-221A-144
; Sequence 144, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 144
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
US-09-843-221A-144

Query Match 100.0%; Score 46; DB 3; Length 30;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEHQLLH 9

RESULT 15
US-09-843-221A-145
; Sequence 145, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 145
; LENGTH: 30
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTHrP
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:36:21 ; Search time 0.758427 Seconds
(without alignments)
56.822 Million cell updates/sec

Title: US-10-691-125-2
Perfect score: 46
Sequence: 1 AVSEHQQLH 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 26661 seqs, 4788334 residues

Total number of hits satisfying chosen parameters: 26661

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA New:

- 1: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB pep.*
- 5: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB pep.*
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- 7: /cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB pep.*
- 8: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	46	100.0	175	7	US-11-058-384-2
2	46	100.0	177	6	US-10-623-155-165
3	46	100.0	177	6	US-10-623-155-166
4	33	71.7	12	6	US-10-954-695-5
5	33	71.7	15	6	US-10-954-695-11
6	31	67.4	215	6	US-10-793-626-828
7	30	65.2	12	6	US-10-954-695-3
8	30	65.2	15	6	US-10-954-695-9
9	30	65.2	262	6	US-10-467-657-7300
10	30	65.2	328	6	US-10-131-826A-326
11	29	63.0	11	6	US-10-954-695-1
12	29	63.0	12	6	US-10-954-695-6
13	29	63.0	14	6	US-10-954-695-7
14	29	63.0	15	6	US-10-954-695-12
15	29	63.0	111	6	US-10-793-626-384
16	29	63.0	138	6	US-10-793-626-1540
17	29	63.0	145	6	US-10-793-626-2328
18	29	63.0	176	6	US-10-793-626-612
19	29	63.0	290	7	US-11-113-424-78
20	29	63.0	309	6	US-10-858-730-213
21	29	63.0	421	6	US-10-467-657-3348
22	29	63.0	523	6	US-10-467-657-5392
23	29	63.0	584	6	US-10-485-517-164
24	29	63.0	1171	6	US-10-467-657-7842
25	29	63.0	2314	7	US-11-097-728-2

Sequence 6, Appli
Sequence 110, App
Sequence 6246, Ap
Sequence 1744, Ap
Sequence 560, App
Sequence 562, App
Sequence 6376, Ap
Sequence 1592, Ap
Sequence 5866, Ap
Sequence 1298, Ap
Sequence 836, App
Sequence 7280, Ap
Sequence 8158, Ap
Sequence 770, App
Sequence 476, App
Sequence 2482, App
Sequence 167, App
Sequence 1432, Ap
Sequence 4, Appli
Sequence 10, Appli

26 29 63.0 2353 7 US-11-097-728-6
27 28 60.9 103 6 US-10-467-657-110
28 28 60.9 103 6 US-10-467-657-6246
29 28 60.9 237 6 US-10-793-626-1744
30 28 60.9 422 7 US-11-055-822-560
31 28 60.9 422 7 US-11-055-822-562
32 28 60.9 594 6 US-10-467-657-6376
33 27.5 59.8 307 6 US-10-467-657-1592
34 27 58.7 49 6 US-10-467-657-5686
35 27 58.7 298 6 US-10-793-626-1298
36 27 58.7 401 6 US-10-793-626-836
37 27 58.7 490 6 US-10-467-657-7280
38 27 58.7 490 6 US-10-467-657-8158
39 27 58.7 492 6 US-10-793-626-770
40 27 58.7 567 6 US-10-131-826A-476
41 27 58.7 568 6 US-10-793-626-2482
42 27 58.7 873 7 US-11-077-550-167
43 27 58.7 1145 6 US-10-793-626-1432
44 26 56.5 12 6 US-10-954-695-4
45 26 56.5 15 6 US-10-954-695-10

ALIGNMENTS

RESULT 1

US-11-058-384-2
; Sequence 2, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; APPLICANT: FIASCHI-TAESCH, Nathalie
; TITLE OF INVENTION: PTHR-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patent in version 3.3
; SEQ ID NO 2
; LENGTH: 175
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-2

Query Match 100.0%; Score 46; DB 7; Length 175;
Best Local Similarity 100.0%; Pred. No. 0.011;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQQLH 9
| | | | | | | | | |
Db 37 AVSEHQQLH 45

RESULT 2

US-10-623-155-165
; Sequence 165, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0

; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-165

Query Match 100.0%; Score 46; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.011;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 37 AVSEHQLLH 45

RESULT 3

US-10-623-155-166
; Sequence 166, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623,155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-166

Query Match 100.0%; Score 46; DB 6; Length 177;
Best Local Similarity 100.0%; Pred. No. 0.011;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 37 AVSEHQLLH 45

RESULT 4

US-10-954-695-5
; Sequence 5, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; TITLE OF INVENTION: Hormone (PTH) 1-84
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR FILING DATE: 2004-09-30
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 5
; LENGTH: 12
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-5

Query Match 71.7%; Score 33; DB 6; Length 12;
Best Local Similarity 77.8%; Pred. No. 0.18;

Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Qy 1 AVSEHQLLH 9
Db 1 AVSEIQLMH 9

RESULT 5

US-10-954-695-11
; Sequence 11, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 09/730,174
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 11
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-11

Query Match 71.7%; Score 33; DB 6; Length 15;
Best Local Similarity 77.8%; Pred. No. 0.23;
Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEIQLMH 9

RESULT 6

US-10-793-626-828
; Sequence 828, Application US/10793626
; Publication No. US20050255478A1
; GENERAL INFORMATION:
; APPLICANT: KIMMERLY, WILLIAM JOHN
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
; FILE REFERENCE: PU3480US
; CURRENT APPLICATION NUMBER: US/10/793,626
; CURRENT FILING DATE: 2004-03-04
; PRIOR APPLICATION NUMBER: 60/164,258
; PRIOR FILING DATE: 1999-11-09
; NUMBER OF SEQ ID NOS: 4472
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 828
; LENGTH: 215
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: amino acid sequence
US-10-793-626-828

Query Match 67.4%; Score 31; DB 6; Length 215;
Best Local Similarity 66.7%; Pred. No. 11;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 190 AQSARELLH 198

RESULT 7
US-10-954-695-3
; Sequence 3, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; TITLE OF INVENTION: Hormone (PTH) 1-84
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 09/730,174
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: Patent version 3.3
; SEQ ID NO 3
; LENGTH: 12
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-3

Query Match 65.2%; Score 30; DB 6; Length 12;
Best Local Similarity 66.7%; Pred. No. 0.67; Mismatches 2; Indels 1; Gaps 0;
Matches 6; Conservative 2;

Qy 1 AVSEHQLLH 9
:|||||:
Db 1 SVSEIQLMH 9

RESULT 8
US-10-954-695-9
; Sequence 9, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; TITLE OF INVENTION: Hormone (PTH) 1-84
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 09/730,174
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: Patent version 3.3
; SEQ ID NO 9
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-9

Query Match 65.2%; Score 30; DB 6; Length 15;
Best Local Similarity 66.7%; Pred. No. 0.86; Mismatches 2; Indels 1; Gaps 0;
Matches 6; Conservative 2;

Qy 1 AVSEHQLLH 9
:|||||:
Db 1 SVSEIQLMH 9

RESULT 9
US-10-467-657-7300
; Sequence 7300, Application US/10467657
; Publication No. US20050260581A1
; GENERAL INFORMATION:

; APPLICANT: CHIRON SpA
; APPLICANT: FONTANA Maria Rita
; APPLICANT: PIZZA Mariagrazia
; APPLICANT: MASIGNANI Vega
; APPLICANT: MONACI Elisabetta
; TITLE OF INVENTION: GONOCOCCAL PROTEINS AND NUCLEIC ACIDS
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/467,657
; CURRENT FILING DATE: 2003-08-11
; PRIOR APPLICATION NUMBER: GB-0103424.8
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 9218
; SOFTWARE: SeqWin99, version 1.04
; SEQ ID NO 7300
; LENGTH: 262
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-7300

Query Match 65.2%; Score 30; DB 6; Length 262;
Best Local Similarity 83.3%; Pred. No. 21; Mismatches 1; Indels 0; Gaps 0;
Matches 5; Conservative 1;

Qy 4 EHQLLH 9
:|||||:
Db 17 EHRLH 22

RESULT 10
US-10-131-826A-326
; Sequence 326, Application US/10131826A
; Publication No. US20050245730A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: DeForge, Laura
; APPLICANT: Desnoyers, Luc
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Geritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Sherwood, Steven
; APPLICANT: Smith, Victoria
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Watanabe, Colin K
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3330R1C128
; CURRENT APPLICATION NUMBER: US/10/131,826A
; CURRENT FILING DATE: 2002-04-24
; PRIOR APPLICATION NUMBER: 60/049911
; PRIOR FILING DATE: 1997-06-18
; PRIOR APPLICATION NUMBER: 60/056974
; PRIOR FILING DATE: 1997-08-26
; PRIOR APPLICATION NUMBER: 60/059113
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059115
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059117
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059122
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059184
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/059263
; PRIOR FILING DATE: 1997-09-18
; PRIOR APPLICATION NUMBER: 60/059352
; PRIOR FILING DATE: 1997-09-19

; PRIOR APPLICATION NUMBER: 60/059588
; PRIOR FILING DATE: 1997-09-19
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 326
; LENGTH: 328
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-131-826A-326

Query Match 65.2%; Score 30; DB 6; Length 328;
Best Local Similarity 66.7%; Pred. No. 27;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 143 AGSEHQINH 151

RESULT 11

US-10-954-695-1
; Sequence 1, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; TITLE OF INVENTION: Hormone (PTH) 1-84
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 09/730,174
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 1
; LENGTH: 11
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-1

Query Match 63.0%; Score 29; DB 6; Length 11;
Best Local Similarity 75.0%; Pred. No. 0.95;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 VSEHQLLH 9
Db 1 VSEIQLMH 8

RESULT 12

US-10-954-695-6
; Sequence 6, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; TITLE OF INVENTION: Hormone (PTH) 1-84
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 09/730,174
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
; LENGTH: 12
; TYPE: PRT

; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-6

Query Match 63.0%; Score 29; DB 6; Length 12;
Best Local Similarity 66.7%; Pred. No. 1.1;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
Db 1 AVSEIQFMH 9

RESULT 13

US-10-954-695-7
; Sequence 7, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; TITLE OF INVENTION: Hormone (PTH) 1-84
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 09/730,174
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 7
; LENGTH: 14
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-7

Query Match 63.0%; Score 29; DB 6; Length 14;
Best Local Similarity 75.0%; Pred. No. 1.2;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 VSEHQLLH 9
Db 1 VSEIQLMH 8

RESULT 14

US-10-954-695-12
; Sequence 12, Application US/10954695
; Publication No. US20050260191A1
; GENERAL INFORMATION:
; APPLICANT: Zahradnik, Richard J.
; APPLICANT: Lavigne, Jeffrey R.
; TITLE OF INVENTION: Antibodies and Peptide Antigens for Producing Antibodies having a
; TITLE OF INVENTION: Selective Binding Specificity to Bioactive Intact Parathyroid
; TITLE OF INVENTION: Hormone (PTH) 1-84
; FILE REFERENCE: IMUNE-001C
; CURRENT APPLICATION NUMBER: US/10/954,695
; CURRENT FILING DATE: 2004-09-30
; PRIOR APPLICATION NUMBER: US 09/730,174
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Induces Formation of Antibodies and Isolates Said Antibodies
US-10-954-695-12

Query Match 63.0%; Score 29; DB 6; Length 15;
 Best Local Similarity 66.7%; Pred. No. 1.3;
 Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 AVSEHQLLH 9
 Db 1 AVSEIQFMH 9

RESULT 15
 US-10-793-626-384
 ; Sequence 384, Application US/10793626
 ; Publication No. US20050255478A1
 ; GENERAL INFORMATION:
 ; APPLICANT: KIMMERLY, WILLIAM JOHN
 ; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
 ; FILE REFERENCE: PU3480US
 ; CURRENT APPLICATION NUMBER: US/10/793,626
 ; CURRENT FILING DATE: 2004-03-04
 ; PRIOR APPLICATION NUMBER: 60/164,258
 ; PRIOR FILING DATE: 1999-11-09
 ; NUMBER OF SEQ ID NOS: 4472
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 384
 ; LENGTH: 111
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic
 ; OTHER INFORMATION: amino acid sequence
 US-10-793-626-384

Query Match 63.0%; Score 29; DB 6; Length 111;
 Best Local Similarity 37.5%; Pred. No. 13;
 Matches 3; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

Qy 2 VSEHQLLH 9
 Db 54 LTQHQLIH 61

Search completed: December 2, 2005, 23:11:03
 Job time : 1.95843 secs

This Page Blank (uspto)

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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:35:41 ; Search time 313.685 Seconds
(without alignments)
187.812 Million cell updates/sec

Title: US-10-691-125-1

Perfect score: 738

Sequence: 1 AVSEHQLLHDKGKSIQDLRR.....EGDHLSDTSTTSLELDSRRH 141

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :

- Published Applications AA Main:
- 1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
 - 2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
 - 3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
 - 4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
 - 5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
 - 6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	738	100.0	141	US-10-344-279-2	Sequence 2, Appli
2	738	100.0	141	US-10-258-477-2	Sequence 2, Appli
3	738	100.0	141	US-10-398-449-32	Sequence 32, Appli
4	738	100.0	141	US-10-691-125-1	Sequence 1, Appli
5	738	100.0	177	US-09-735-705-165	Sequence 165, App
6	738	100.0	177	US-09-735-705-166	Sequence 166, App
7	738	100.0	177	US-09-850-716A-165	Sequence 165, App
8	738	100.0	177	US-09-850-716A-166	Sequence 166, App
9	738	100.0	177	US-09-897-778-165	Sequence 165, App
10	738	100.0	177	US-09-897-778-166	Sequence 166, App
11	738	100.0	177	US-09-466-396A-165	Sequence 165, App
12	738	100.0	177	US-09-466-396A-166	Sequence 166, App
13	738	100.0	177	US-10-007-700-165	Sequence 165, App
14	738	100.0	177	US-10-007-700-166	Sequence 166, App
15	738	100.0	177	US-10-117-982-165	Sequence 165, App
16	738	100.0	177	US-10-117-982-166	Sequence 166, App
17	738	100.0	177	US-10-313-986-165	Sequence 165, App
18	738	100.0	177	US-10-313-986-166	Sequence 166, App
19	738	100.0	177	US-10-775-972-165	Sequence 165, App
20	738	100.0	177	US-10-775-972-166	Sequence 166, App
21	738	100.0	177	US-10-922-124-165	Sequence 165, App
22	738	100.0	177	US-10-922-124-166	Sequence 166, App
23	725	98.2	139	US-10-344-279-1	Sequence 1, Appli
24	725	98.2	139	US-10-258-477-1	Sequence 1, Appli
25	725	98.2	139	US-10-398-449-33	Sequence 33, Appli
26	725	98.2	173	US-10-344-279-3	Sequence 3, Appli
27	725	98.2	173	US-10-258-477-3	Sequence 3, Appli

28	725	98.2	175	4	US-10-171-311-192	Sequence 192, App
29	725	98.2	196	5	US-10-511-698-8	Sequence 8, Appli
30	725	98.2	202	5	US-10-511-698-9	Sequence 9, Appli
31	725	98.2	203	4	US-10-398-449-43	Sequence 43, Appli
32	725	98.2	209	4	US-10-398-449-34	Sequence 34, Appli
33	725	98.2	209	5	US-10-511-698-7	Sequence 7, Appli
34	725	98.2	220	5	US-10-450-763-48402	Sequence 48402, A
35	708	95.9	135	4	US-10-398-449-42	Sequence 42, Appli
36	695	94.2	133	4	US-10-398-449-41	Sequence 41, Appli
37	626	84.8	186	5	US-10-450-763-48399	Sequence 48399, A
38	610	82.7	139	4	US-10-276-231-5	Sequence 5, Appli
39	610	82.7	175	4	US-10-276-231-4	Sequence 4, Appli
40	608	82.4	139	4	US-10-276-231-10	Sequence 10, Appli
41	608	82.4	175	4	US-10-276-231-9	Sequence 9, Appli
42	452	61.2	86	3	US-09-843-221A-62	Sequence 62, Appli
43	452	61.2	86	3	US-09-999-608-62	Sequence 62, Appli
44	452	61.2	86	4	US-10-839-037-62	Sequence 62, Appli
45	402	54.5	140	5	US-10-450-763-48400	Sequence 48400, A

ALIGNMENTS

RESULT 1

US-10-344-279-2
; Sequence 2, Application US/10344279
; Publication No. US20030181373A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISYA
; TITLE OF INVENTION: VESSEL CHALASIA AGENT
; FILE REFERENCE: PH-1247-PCT
; CURRENT APPLICATION NUMBER: US/10/344, 279
; CURRENT FILING DATE: 2002-02-10
; PRIOR APPLICATION NUMBER: JP 2000-243873
; PRIOR FILING DATE: 2000-08-11
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: Patent in Ver. 2.0
; SEQ ID NO 2
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-344-279-2

Query Match 100.0%; Score 738; DB 4; Length 141;
Best Local Similarity 100.0%; Pred. No. 2.5e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	AVSEHQLLHDKGKSIQDLRRFFLHLIAETHTAEIRATSEVSPNSKPSNTKKNHPVRFG	60
Db	1	AVSEHQLLHDKGKSIQDLRRFFLHLIAETHTAEIRATSEVSPNSKPSNTKKNHPVRFG	60
Qy	61	SDDEGRYLTOETNKVETKEOPLTKPGKKKGKPKRKEQKKRTRTSAMLDSGVGTSG	120
Db	61	SDDEGRYLTOETNKVETKEOPLTKPGKKKGKPKRKEQKKRTRTSAMLDSGVGTSG	120
Qy	121	LEGDLSDTSTTSLELDSRRH	141
Db	121	LEGDLSDTSTTSLELDSRRH	141

RESULT 2

US-10-258-477-2
; Sequence 2, Application US/10258477
; Publication No. US20040001824A1
; GENERAL INFORMATION:
; APPLICANT: CHUGAI SEIYAKU KABUSHIKI KAISHA
; TITLE OF INVENTION: CELL GROWTH-INHIBITING AGENT
; FILE REFERENCE: PH-1172-PCT
; CURRENT APPLICATION NUMBER: US/10/258,477
; CURRENT FILING DATE: 2003-02-25
; PRIOR APPLICATION NUMBER: JP2000-131793
; PRIOR FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: JP2000-173834

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; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-258-477-2

Query Match          100.0%; Score 738; DB 4; Length 141;
Best Local Similarity 100.0%; Pred. No. 2.5e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
Db 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60

Qy 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKKGKPGKEQKKRRTRSAWLDGSGVTGSG 120
Db 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKKGKPGKEQKKRRTRSAWLDGSGVTGSG 120

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 121 LEGDHLSDTSTTSLELDSRRH 141

RESULT 3
US-10-398-449-32
; Sequence 32, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Hollick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; FILE OF INVENTION: Using Topically Applied Nucleic Acid Molecules
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 32
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hPTHcP (1-141)
US-10-398-449-32

Query Match          100.0%; Score 738; DB 4; Length 141;
Best Local Similarity 100.0%; Pred. No. 2.5e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
Db 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60

Qy 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKKGKPGKEQKKRRTRSAWLDGSGVTGSG 120
Db 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKKGKPGKEQKKRRTRSAWLDGSGVTGSG 120

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 121 LEGDHLSDTSTTSLELDSRRH 141

RESULT 4
US-10-691-125-1
; Sequence 1, Application US/10691125
; Publication No. US20050033023A1
; GENERAL INFORMATION:
; APPLICANT: Corrales, Pierpaolo
; APPLICANT: Cusi, Maria Grazia
; APPLICANT: Francini, Guido
; TITLE OF INVENTION: PTH-RP RELATED PEPTIDE CANCER THERAPEUTICS
; FILE REFERENCE: 126442-100004US
; CURRENT APPLICATION NUMBER: US/10/691,125
; CURRENT FILING DATE: 2003-10-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 141
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MISC FEATURE
; OTHER INFORMATION: Human PTH-rP amino acid sequence
US-10-691-125-1

Query Match          100.0%; Score 738; DB 5; Length 141;
Best Local Similarity 100.0%; Pred. No. 2.5e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
Db 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60

Qy 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKKGKPGKEQKKRRTRSAWLDGSGVTGSG 120
Db 61 SDDEGRYLTQETNKVETVKEQPLTPGKKKKGKPGKEQKKRRTRSAWLDGSGVTGSG 120

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 121 LEGDHLSDTSTTSLELDSRRH 141

RESULT 5
US-09-735-705-165
; Sequence 165, Application US/09735705
; Patent No. US20020052329A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hosken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; APPLICANT: Henderson, Robert A.
; APPLICANT: McNeill, Patricia D.
; APPLICANT: Fanger, Neil
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C14
; CURRENT APPLICATION NUMBER: US/09/735,705
; CURRENT FILING DATE: 2000-12-12
; NUMBER OF SEQ ID NOS: 419
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-735-705-165

Query Match          100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 60
Db 37 AVSEHQLLHDKGKSIQDLRRRFFLHLLIAEHTAEIRATSEVSPNSKPSPTKNHPVRF 96
```

Qy 61 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 156
Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 6

US-09-735-705-166
; Sequence 166, Application US/09735705
; Patent No. US20020052329A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; APPLICANT: Kalos, Michael D.
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Hoaken, Nancy
; APPLICANT: Fanger, Gary R.
; APPLICANT: Li, Samuel X.
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; APPLICANT: Henderson, Robert A.
; APPLICANT: McNeill, Patricia D.
; APPLICANT: Fanger, Neil
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C14
; CURRENT APPLICATION NUMBER: US/09/735,705
; CURRENT FILING DATE: 2000-12-12
; NUMBER OF SEQ ID NOS: 419
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-735-705-166

Query Match 100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKKNHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 7

US-09-850-716A-165
; Sequence 165, Application US/09850716A
; Patent No. US20020115139A1
; GENERAL INFORMATION:
; APPLICANT: Kalos, Michael D.
; APPLICANT: McNeill, Patricia D.
; APPLICANT: Retter, Marc W.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C15
; CURRENT APPLICATION NUMBER: US/09/850,716A
; CURRENT FILING DATE: 2001-05-07
; NUMBER OF SEQ ID NOS: 440
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177

; TYPE: PRT
; ORGANISM: Homo sapien
US-09-850-716A-165

Query Match 100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKKNHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 8

US-09-850-716A-166
; Sequence 166, Application US/09850716A
; Patent No. US20020115139A1
; GENERAL INFORMATION:
; APPLICANT: Kalos, Michael D.
; APPLICANT: McNeill, Patricia D.
; APPLICANT: Retter, Marc W.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C15
; CURRENT APPLICATION NUMBER: US/09/850,716A
; CURRENT FILING DATE: 2001-05-07
; NUMBER OF SEQ ID NOS: 440
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-850-716A-166

Query Match 100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKKNHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSPTKKNHPVRFG 96
Qy 61 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPGKKEQKQKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 9

US-09-897-778-165
; Sequence 165, Application US/09897778
; Patent No. US20020147143A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Marnarakis, Margarita
; APPLICANT: Fanger, Gary R.
; APPLICANT: Vedrick, Thomas S.
; APPLICANT: Carter, Darrick
; APPLICANT: Watanabe, Yoshihiro
; APPLICANT: Henderson, Robert A.
; APPLICANT: Peckham, David W.
; APPLICANT: Fanger, Neil

```
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C16
; CURRENT APPLICATION NUMBER: US/09/897,778
; CURRENT FILING DATE: 2001-06-28
; NUMBER OF SEQ ID NOS: 467
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-897-778-165

Query Match      100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
Db 37 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 96

Qy 61 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 120
Db 97 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 10
US-09-897-778-166
; Sequence 166, Application US/09897778
; Patent No. US20020147143A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Marnerakis, Margarita
; APPLICANT: Fanger, Gary R.
; APPLICANT: Vedvick, Thomas S.
; APPLICANT: Carter, Darrick
; APPLICANT: Watanabe, Yoshihiro
; APPLICANT: Henderson, Robert A.
; APPLICANT: Peckham, David W.
; APPLICANT: Fanger, Neil
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C16
; CURRENT APPLICATION NUMBER: US/09/897,778
; CURRENT FILING DATE: 2001-06-28
; NUMBER OF SEQ ID NOS: 467
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-897-778-166

Query Match      100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
Db 37 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 96

Qy 61 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 120
Db 97 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C16
; CURRENT APPLICATION NUMBER: US/09/897,778
; CURRENT FILING DATE: 2001-06-28
; NUMBER OF SEQ ID NOS: 467
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-897-778-165

Query Match      100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
Db 37 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 96

Qy 61 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 120
Db 97 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C16
; CURRENT APPLICATION NUMBER: US/09/897,778
; CURRENT FILING DATE: 2001-06-28
; NUMBER OF SEQ ID NOS: 467
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-897-778-166

Query Match      100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
Db 37 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 96

Qy 61 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 120
Db 97 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177
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RESULT 11
US-09-466-396A-165
; Sequence 165, Application US/09466396A
; Publication No. US20030119763A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY AND
; TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C4
; CURRENT APPLICATION NUMBER: US/09/466,396A
; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 224
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-466-396A-165

Query Match      100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
Db 37 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 96

Qy 61 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 120
Db 97 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

; Sequence 166, Application US/09466396A
; Publication No. US20030119763A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY AND
; TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER
; FILE REFERENCE: 210121.455C4
; CURRENT APPLICATION NUMBER: US/09/466,396A
; CURRENT FILING DATE: 1999-12-17
; NUMBER OF SEQ ID NOS: 224
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-466-396A-166

Query Match      100.0%; Score 738; DB 3; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 60
Db 37 AVSEHQLLDKKGSIQDLRRFFLHLLIAEHTAEIRATSEVSPNSKPSNTKNHPVRF 96

Qy 61 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 120
Db 97 SDDGRLYTQETNKVETKEQPLTPGKKKGKPGKKEQKKRRTRSAWLDGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177
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RESULT 13
US-10-007-700-165
; Sequence 165, Application US/10007700
; Publication No. US20030064947A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; APPLICANT: Li, Samuel X.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Henderson, Robert A.
; APPLICANT: McNeill, Patricia D.
; APPLICANT: Fanger, Neil
; APPLICANT: Retter, Marc W.
; APPLICANT: Durham, Margarita
; APPLICANT: Fanger, Gary R.
; APPLICANT: Vedrick, Thomas S.
; APPLICANT: Carter, Darrick
; APPLICANT: Watanabe, Yoshihiro
; APPLICANT: Peckman, David W.
; APPLICANT: Cai, Feng
; APPLICANT: Foy, Teresa M.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C17
; CURRENT APPLICATION NUMBER: US/10/007,700
; CURRENT FILING DATE: 2001-11-30
; NUMBER OF SEQ ID NOS: 469
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-007-700-165

Query Match 100.0%; Score 738; DB 4; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKHPVRFG 96

Qy 61 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPKRKEQKKRRTSRAMLDSGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPKRKEQKKRRTSRAMLDSGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 14
US-10-007-700-166
; Sequence 166, Application US/10007700
; Publication No. US20030064947A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Wang, Aijun
; APPLICANT: Skeiky, Yasir A.W.
; APPLICANT: Li, Samuel X.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Henderson, Robert A.
; APPLICANT: McNeill, Patricia D.
; APPLICANT: Fanger, Neil
; APPLICANT: Retter, Marc W.
; APPLICANT: Durham, Margarita
; APPLICANT: Fanger, Gary R.
; APPLICANT: Vedrick, Thomas S.
; APPLICANT: Carter, Darrick
; APPLICANT: Watanabe, Yoshihiro
; APPLICANT: Peckman, David W.
; APPLICANT: Cai, Feng
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C17
; CURRENT APPLICATION NUMBER: US/10/007,700
; CURRENT FILING DATE: 2001-11-30
; NUMBER OF SEQ ID NOS: 469
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 166
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-007-700-166

Query Match 100.0%; Score 738; DB 4; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKHPVRFG 96

Qy 61 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPKRKEQKKRRTSRAMLDSGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPKRKEQKKRRTSRAMLDSGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
Db 157 LEGDHLSDTSTTSLELDSRRH 177

RESULT 15
US-10-117-982-165
; Sequence 165, Application US/10117982
; Publication No. US20030138438A1
; GENERAL INFORMATION:
; APPLICANT: Foy, Teresa M.
; APPLICANT: Vedrick, Thomas S.
; APPLICANT: Carter, Darrick
; APPLICANT: Watanabe, Yoshihiro
; APPLICANT: Henderson, Robert A.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Mericle, Barbara
; APPLICANT: Spies, Gregory A.
; APPLICANT: Fan, Liqun
; APPLICANT: Wang, Tongtong
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C18
; CURRENT APPLICATION NUMBER: US/10/117,982
; CURRENT FILING DATE: 2002-04-05
; NUMBER OF SEQ ID NOS: 484
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-117-982-165

Query Match 100.0%; Score 738; DB 4; Length 177;
Best Local Similarity 100.0%; Pred. No. 3.2e-63;
Matches 141; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKHPVRFG 60
Db 37 AVSEHQLLHDGKSIQDLRRRFFLHLIAEHTAEIRATSEVSPNSKPSNTKHPVRFG 96

Qy 61 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPKRKEQKKRRTSRAMLDSGVTGSG 120
Db 97 SDDEGRYLTOETNKVETKYEQPLKTPGKKKGKPKRKEQKKRRTSRAMLDSGVTGSG 156

Qy 121 LEGDHLSDTSTTSLELDSRRH 141
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Db 157 LEGDHLSDTSTTSLELDSRRH 177

Search completed: December 2, 2005, 23:10:41
Job time : 315.685 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 2, 2005, 22:36:21 ; Search time 11.882 Seconds
(without alignments)
56.822 Million cell updates/sec

Title: US-10-691-125-1
Perfect score: 738
Sequence: 1 AVSEHQLLDKGSIQDLRR.....EGDHLSDTSTSLDLSRRH 141

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 26661 seqs, 4788334 residues

Total number of hits satisfying chosen parameters: 26661

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

- Database : Published Applications AA New:*
- 1: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
 - 2: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
 - 3: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
 - 4: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
 - 5: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
 - 6: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
 - 7: /cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep.*
 - 8: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result. No.	Score	Query Match	Length	DB ID	Description
1	738	100.0	177	6	US-10-623-155-165
2	738	100.0	177	6	US-10-623-155-166
3	725	98.2	175	7	US-11-058-384-2
4	168	22.8	33	7	US-11-058-384-4
5	168	22.8	33	7	US-11-058-384-14
6	165	22.4	33	7	US-11-058-384-9
7	165	22.4	33	7	US-11-058-384-10
8	165	22.4	33	7	US-11-058-384-12
9	163	22.1	33	7	US-11-058-384-11
10	151	20.5	33	7	US-11-058-384-8
11	126	17.1	24	7	US-11-058-384-7
12	108.5	14.7	24	7	US-11-058-384-5
13	101	13.7	23	7	US-11-058-384-6
14	99	13.4	19	7	US-11-058-384-13
15	96	13.0	19	7	US-11-058-384-3
16	77	10.4	1531	7	US-11-087-227-24
17	76.5	10.4	1616	6	US-10-821-234-1497
18	73	9.9	252	6	US-10-821-234-1445
19	71	9.6	2432	6	US-10-821-234-899
20	70.5	9.6	346	6	US-10-467-657-2676
21	70.5	9.6	663	6	US-10-467-945A-1
22	69	9.3	333	6	US-10-821-234-1323
23	68	9.2	404	6	US-10-793-626-398
24	66.5	9.0	437	6	US-10-967-648A-2
25	66	8.9	612	6	US-10-467-657-3988

26	66	8.9	651	6	US-10-821-234-1666	Sequence 1666, Ap
27	66	8.9	1874	6	US-10-821-234-1182	Sequence 1182, Ap
28	66	8.8	427	6	US-10-467-657-4384	Sequence 4384, Ap
29	64.5	8.7	559	6	US-10-793-626-1376	Sequence 1376, Ap
30	63.5	8.6	411	6	US-10-467-657-4444	Sequence 4444, Ap
31	63	8.5	1142	7	US-11-109-156-22	Sequence 22, Appl
32	61.5	8.3	392	6	US-10-467-657-5980	Sequence 5980, Ap
33	61.5	8.3	431	7	US-11-058-735-79	Sequence 79, Appl
34	61.5	8.3	540	6	US-10-821-234-1456	Sequence 1456, Ap
35	61.5	8.3	645	6	US-10-485-517-244	Sequence 244, App
36	61.5	8.3	4384	6	US-10-821-234-1120	Sequence 1120, Ap
37	61	8.3	255	6	US-10-793-626-1304	Sequence 1304, Ap
38	61	8.3	348	6	US-10-793-626-1702	Sequence 1702, Ap
39	61	8.3	351	6	US-10-793-626-338	Sequence 338, App
40	61	8.3	404	6	US-10-793-626-2638	Sequence 2638, Ap
41	61	8.3	470	6	US-10-793-626-2922	Sequence 2922, Ap
42	61	8.3	696	6	US-10-793-626-570	Sequence 570, App
43	61	8.3	715	6	US-11-074-176-322	Sequence 322, App
44	61	8.3	877	7	US-11-074-176-322	Sequence 877, Appl
45	61	8.3	883	7	US-11-074-176-88	Sequence 88, Appl

ALIGNMENTS

RESULT 1
US-10-623-155-165
; Sequence 165, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; FILE REFERENCE: 210121.455C20
; CURRENT APPLICATION NUMBER: US/10/623.155
; CURRENT FILING DATE: 2003-07-17
; NUMBER OF SEQ ID NOS: 560
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-623-155-165

Query Match	100.0%;	Score	738;	DB	6;	Length	177;
Best Local Similarity	100.0%;	Pred. No.	1.9e-63;				
Matches	141;	Conservative	0;	Mismatches	0;	Indels	0;
Gaps	0;						
Qy	1	AVSEHQLLDKGSIQDLRRFFFLHLIAETHTAEIRATSEVSPNSKPSNTKHPVRFG	60				
Db	37	AVSEHQLLDKGSIQDLRRFFFLHLIAETHTAEIRATSEVSPNSKPSNTKHPVRFG	96				
Qy	61	SDDSGRYLTQTNKVETVYKEQPLTPGKKKKGKPKRKEQKKRRTSALWDSGVTGSG	120				
Db	97	SDDSGRYLTQTNKVETVYKEQPLTPGKKKKGKPKRKEQKKRRTSALWDSGVTGSG	156				
Qy	121	LEGDHLSDTSTSLDLSRRH	141				
Db	157	LEGDHLSDTSTSLDLSRRH	177				

RESULT 2
US-10-623-155-166
; Sequence 166, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Peckham, David W.
; APPLICANT: Retter, Marc W.
; APPLICANT: Fanger, Gary R.


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; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 9
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-9

Query Match      22.4%; Score 165; DB 7; Length 33;
Best Local Similarity 97.0%; Pred. No. 3.3e-10;
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 107 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 139
Db 1 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 33

RESULT 7
US-11-058-384-10
; Sequence 10, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 10
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-10

Query Match      22.4%; Score 165; DB 7; Length 33;
Best Local Similarity 97.0%; Pred. No. 3.3e-10;
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 107 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 139
Db 1 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 33

RESULT 8
US-11-058-384-12
; Sequence 12, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-10

Query Match      22.4%; Score 165; DB 7; Length 33;
Best Local Similarity 97.0%; Pred. No. 3.3e-10;
Matches 32; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 107 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 139
Db 1 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 33

RESULT 9
US-11-058-384-11
; Sequence 11, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 11
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-11

Query Match      22.1%; Score 163; DB 7; Length 33;
Best Local Similarity 97.0%; Pred. No. 5e-10;
Matches 32; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 107 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 139
Db 1 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 33

RESULT 10
US-11-058-384-8
; Sequence 8, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 8
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-8

Query Match      20.5%; Score 151; DB 7; Length 33;
Best Local Similarity 84.8%; Pred. No. 6.8e-09;
Matches 28; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Qy 107 TRSAWLDSGVTGSGLEGHDHLSDTTSTLSLEDSR 139
Db 1 TRSAWLDSGVTGAGLEGHDHLSDTTATALELDAR 33
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RESULT 11
US-11-058-384-7
; Sequence 7, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; PRIOR FILING DATE: 2002-08-15
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 7
; LENGTH: 24
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-7

Query Match      17.1%; Score 126; DB 7; Length 24;
Best Local Similarity 100.0%; Pred. No. 1.1e-06;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      107 TRSAWLDSGVGTSGLEGDHLSDTSTTSLELDSR 130
Db      1 TRSAWLDSGVGTSGLEGDHLSDTSTTSLELDSR 24

RESULT 12
US-11-058-384-5
; Sequence 5, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 5
; LENGTH: 24
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-5

Query Match      14.7%; Score 108.5; DB 7; Length 24;
Best Local Similarity 72.7%; Pred. No. 4.8e-05;
Matches 24; Conservative 0; Mismatches 0; Indels 9; Gaps 1;

Qy      107 TRSAWLDSGVGTSGLEGDHLSDTSTTSLELDSR 139
Db      1 TRSAW-----LEGDHLSDTSTTSLELDSR 24

RESULT 13
US-11-058-384-6
; Sequence 6, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-6

Query Match      13.7%; Score 101; DB 7; Length 23;
Best Local Similarity 69.7%; Pred. No. 0.00024;
Matches 23; Conservative 0; Mismatches 0; Indels 10; Gaps 1;

Qy      107 TRSAWLDSGVGTSGLEGDHLSDTSTTSLELDSR 139
Db      1 TRSAWLDSGVGTSG-----TTSLELDSR 23

RESULT 14
US-11-058-384-13
; Sequence 13, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 13
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-13

Query Match      13.4%; Score 99; DB 7; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.00029;
Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      88 KKKKGKPKRKEQKKRR 106
Db      1 KKKKGKPKRKEQKKRR 19

RESULT 15
US-11-058-384-3
; Sequence 3, Application US/11058384
; Publication No. US20050261183A1
; GENERAL INFORMATION:
; APPLICANT: STEWART, Andrew F.
; TITLE OF INVENTION: PTHRP-Derived Modulators of Smooth Muscle Proliferation
; FILE REFERENCE: VAS-001US
; CURRENT APPLICATION NUMBER: US/11/058,384
; CURRENT FILING DATE: 2005-02-15
; PRIOR APPLICATION NUMBER: PCT/US2003/025473
; PRIOR FILING DATE: 2003-08-13
; PRIOR APPLICATION NUMBER: 60/403,805
; NUMBER OF SEQ ID NOS: 14
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; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 3
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-058-384-3

Query Match      13.0%; Score 96; DB 7; Length 19;
Best Local Similarity 94.7%; Pred. No. 0.00056;
Matches 18; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy      88 KKKKGKPGKKEQEKKKR 106
         |||||:|||||:|||||
Db       1 KKKKGKPGKKEQEKKKR 19

Search completed: December 2, 2005, 23:11:02
Job time : 13.082 secs
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